ChallengeU Pennsylvania Cyber CS
Appendix Q
Science Core Curriculum

Standards Alignment For PA-Chemistry

Select a state below to see the standards alignments for this course. You can then roll your mouse over the "State ID" to see the full text of that standard.

State: PA | Document: Pennsylvania Core and Academic Standards - 2014 | Load Standards

The Scientific Process

Lesson	Grade Level	State ID
Scientific Methods		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Hypotheses, Laws, and Theories		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.
	11	CC.3.6.11-1
	11	CC.3.6.11-12.

Scientific Notation and Significant Figures		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Using Math to Analyze Data		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Unit Test		

Atomic Structure and the Periodic Table

Lesson	Grade Level	State ID
The Historical Development of Atomic Theory		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
The Modern Atomic Theory		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12
Th e of the Atom		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.

	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Elements, Compounds, and Mixtures		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.1.
	11	CC.3.6.11-12.A.2.
	11	CC.3.6.11-12.A.3.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
The History and Arrangement of the Periodic Table		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Atomic Numbers and Electron Configurations		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Elec[illegible] the Periodic Table		
	11	CC.3.5.11-1[illegible]
	11	CC.3.5.11-12.[illegible]
	11	CC.3.5.11-12.E.

	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Periodic Trends		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Unit Test		

States and Changes of Matter

Lesson	Grade Level	State ID
Gases		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Liquids		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.B.5.

	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Solids and Plasmas		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Phase Changes		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Changes in Matter		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12
La al and Chemical Changes		
	11	CC.3.5.11-12.
	11	CC.3.5.11-12.C.

	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.E.
	11	CC.3.6.11-12.I.

Unit Test

Chemical Bonding

Lesson	Grade Level	State ID
Ionic Bonding		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Nomenclature of Ionic Compounds		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Covalent Bonding		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Nom[illegible] of Covalent Compounds		
	11	CC.3.5.11-1[illegible]
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.

	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Lab: Ionic and Covalent Bonds		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Unit Test		

Chemical Reactions

Lesson	Grade Level	State ID
Writing and Balancing Chemical Equations		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Types of Reactions		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Lab: Types of Reactions		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.

	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.

Unit Test

Stoichiometry

Lesson	Grade Level	State ID
Molar Masses		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Percent Composition and Molecular Formula		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Introduction to Stoichiometry		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Stoichiometric Calculations		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Limiting Reactant and Percent Yield		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12
	11	CC.3.5.11-1
	11	CC.3.5.11-1
	11	CC.3.6.11-12.A.4.

	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Unit Test		

The Gas Laws

Lesson	Grade Level	State ID
Gas Laws		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Lab: Charles's Law		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Lab: Boyle's Law		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12
	11	CC.3.5.11-1
	11	CC.3.5.11-12
	11	CC.3.6.11-12.A.5.

	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
The Ideal Gas Law		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Gas Stoichiometry		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Unit Test		

Reaction Rate and Energy in Chemical Reactions

Lesson	Grade Level	State ID
Energy		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Heat		
	11	CC.3.5.11-12
	11	CC.3.5.11-1
	11	CC.3.5.11-12.J.
	11	CC.3.5.11-12.I.

	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Enthalpy, Entropy, and Free Energy		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Reaction Rate		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Lab: Reaction Rate		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Unit		

M nd Solutions

Lesson	Grade Level	State ID

Mixtures and Solutions		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Solutions and Solubility		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Lab: Solubility		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Measures of Concentration: Molarity		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12
	11	CC.3.5.11-1
	11	CC.3.5.11-12
	11	CC.3.6.11-12.A.4.

	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Measures of Concentration: Molality and Other Calculations		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Unit Test		

Acids and Bases

Lesson	Grade Level	State ID
Properties of Acids and Bases		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Arrhenius, Bronsted-Lowry, and Lewis Acids and Bases		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
pH		
	11	CC.3.5.11-12
	11	CC.3.5.11-1
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.

	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.1.
	11	CC.3.6.11-12.A.2.
	11	CC.3.6.11-12.A.3.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Lab: Measuring pH		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Neutralization Reactions		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Unit Test		

Organic Chemistry and Biochemistry

Lesson	Grade Level	State ID
Organic Compounds		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.
Carbohydrates and Lipids		

	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Amino Acids and Proteins		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Metabolism		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Nucleic Acids		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.E.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Unit Test		

N emistry

Les	**Grade Level**	**State**
Types of Radioactive Decay		

	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Balancing Nuclear Reactions		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Half-Life		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.C.
Nuclear Fission and Nuclear Fusion		
	11	CC.3.5.11-12.B.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.E.
	11	CC.3.5.11-12.I.
	11	CC.3.5.11-12.J.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
Unit Test		

Unit	Lesson	Lesson Objectives
The Scientific Process		
	Scientific Methods	
		Describe how scientists perform experiments and gather data.
		Describe the function of models in science, and recognize the usefulness and limitations of models as representations.
		Explain the importance of controlled tests in scientific investigations.
		Science Practice: Write a procedure for a controlled investigation to answer a question.
		Show how scientists communicate, share information, and support the importance of peer review.
	Hypotheses, Laws, and Theories	
		Differentiate scientific hypotheses, theories, and laws.
		Give examples of how hypotheses lead to new experimentation.
		Identify the role of consensus and retesting in the development of theories.
		Science Practice: Create a chart comparing hypotheses, theories, and laws.
	Scientific Notation and Significant Figures	
		Science Practice: Solve science-related math problems using scientific notation with the correct number of significant figures.
		Use appropriate numbers of significant figures for calculated data.
		Write measurements in scientific notation.
	Using Math to Analyze Data	
		Create graphs and compare data points graphically.
		Explain the difference and relationship between accuracy and precision.
		Science Practice: Make measurements with accuracy and precision.
		Use mathematical error analysis to analyze data points.
Atomic Structure and the Periodic Table		
	The Historical Development of Atomic Theory	
		Describe early atomic models including Dalton's postulates.
		Describe how Rutherford's gold foil experiment led to Rutherford's nuclear model of the atom.
		Describe how Thomson's and Millikan's research led to the understanding of the electron in the early atomic model.
		Science Practice: Describe, in writing, how a scientist's creativity resulted in changes in atomic theory.
	The Modern Atomic Theory	
		Describe the experimental basis for Einstein's explanation of the photoelectric effect.
		Describe the modern (electron cloud) model of the atom.
		Explain Bohr's model of the atom and how it accounts for the existence of spectral lines.
		Science Practice: Compare Dalton's atomic model with the current quantum model of the atom.

Unit	Lesson	Lesson Objectives
	The Structure of the Atom	
		Describe the structure of atoms, and discriminate between the relative sizes and electrical charges of protons, neutrons, and electrons.
		Explain that protons and neutrons have substructures and consist of particles called quarks.
		Explain the relationship between the number of neutrons in an atom of an element, its mass number, and its isotopes.
		Identify an element based on the number of protons in an atom.
		Science Practice: Use math to calculate the average atomic mass of an element from its isotopic composition.
	Elements, Compounds, and Mixtures	
		Describe compounds as pure substances.
		Describe elements as pure substances.
		Describe mixtures.
		Science Practice: Classify matter as pure substances or mixtures by studying their properties.
	The History and Arrangement of the Periodic Table	
		Describe the arrangement of the periodic table and relate the properties of atoms to their position in the periodic table.
		Outline the historical development of the periodic table.
		Science Practice: Predict the properties of elements based on their position on the periodic table.
		Use the periodic table to classify elements.
	Atomic Numbers and Electron Configurations	
		Express the arrangement of electrons of atoms using electron configurations.
		Identify electron configurations as a scientific model, and explain its usefulness and limitations.
		Science Practice: Use specific symbols to represent the arrangement of electrons in atoms.
		Use atomic orbitals to write quantum numbers for electrons.
	Electrons and the Periodic Table	
		Relate the position of an element in the periodic table to its electron configuration.
		Science Practice: Analyze the relationship between electron configurations and the structure of the periodic table.
		Use the periodic table to determine the number of valence electrons available for bonding.
	Periodic Trends	
		Science Practice: Given two elements, make predictions that compare their radii, ionization energy, electronegativity, and/or electron affinity.
		Use the periodic table to identify and explain periodic trends in ionization energy.
		Use the periodic table to identify trends in electronegativity and electron affinity.
		Use the periodic table to predict trends in atomic radii and ionic radii.
States and Changes of Matter		
	Gases	
		Describe how kinetic-molecular theory explains the properties of gases, including temperature, pressure, compressibility, and volume.
		Describe the postulates of kinetic-molecular theory.
		Interpret the behavior of ideal gases in terms of kinetic-molecular theory, including diffusion and effusion.
		Science Practice: Identify the limitations of kinetic-molecular theory.

Unit	Lesson	Lesson Objectives
	Liquids	
		Describe how kinetic-molecular theory explains the properties of liquids, including compressibility and shape.
		Describe how the postulates of kinetic-molecular theory apply to liquids.
		Science Practice: Use the kinetic-molecular theory model to explain the behavior of liquids.
	Solids and Plasmas	
		Describe how kinetic-molecular theory explains the properties of plasmas.
		Describe how kinetic-molecular theory explains the properties of solids, including compressibility, shape, and volume.
		Science Practice: Give examples of plasmas in nature and technology.
		Use kinetic-molecular theory to compare and contrast atomic or molecular motion in solids and plasmas.
	Phase Changes	
		Describe phase changes in terms of kinetic-molecular theory.
		Describe the energy changes that happen during changes of state.
		Science Practice: Make and interpret graphs of temperature vs. time for changes of state.
	Changes in Matter	
		Differentiate between extensive and intensive properties of matter, and give examples of each.
		Differentiate between physical changes and chemical changes of matter.
		Differentiate between physical properties and chemical properties of matter.
		Science Practice: Identify substances based on their chemical and physical properties.
	Lab: Physical and Chemical Changes	
		Conduct systematic observations during an experiment.
		Describe indicators of chemical change.
		Distinguish between chemical changes and physical changes.
		Science Practice: Write a clear, coherent laboratory report that describes methods used and conclusions made.
Chemical Bonding		
	Ionic Bonding	
		Describe how polyatomic ions form ionic bonds with other ions.
		Explain how ionic bonds affect the properties of ionic compounds.
		Explain how ionic bonds form.
		Explain that ionic compounds form crystal lattices.
		Science Practice: Explain the process by which ionic bonds form.
	Nomenclature of Ionic Compounds	
		Name ionic compounds using the International Union of Pure and Applied Chemistry (IUPAC) nomenclature rules.
		Predict formulas of stable ionic compounds by balancing charges.
		Science Practice: Develop vocabulary by using IUPAC rules for naming ionic compounds.
		Write chemical formulas of ionic compounds and common polyatomic ions.

Unit	Lesson	Lesson Objectives
	Covalent Bonding	
		Construct electron-dot structures (i.e., Lewis structures) to illustrate the arrangement of electrons in covalent structures.
		Explain how covalent bonds affect the properties of covalent compounds.
		Science Practice: Develop and use electron-dot models, and explain their usefulness and limitations.
		Use the octet rule to predict covalent compounds.
		Use the periodic table to determine the number of electrons available for bonding.
	Nomenclature of Covalent Compounds	
		Science Practice: Develop vocabulary by using IUPAC rules for naming covalent compounds.
		Use IUPAC nomenclature rules to name and write the chemical formulas of acids and bases.
		Use the International Union of Pure and Applied Chemistry (IUPAC) nomenclature rules to write the names of covalent compounds.
		Write formulas for covalent compounds and interpret those formulas in terms of composition and structure.
	Lab: Ionic and Covalent Bonds	
		Design and conduct an experiment to test the properties of substances.
		Draw conclusions about the type of bond in a substance based on the tested properties of that substance.
		Science Practice: Compare your conclusions about the identity of the bonds in substances to published information about those substances.
Chemical Reactions		
	Writing and Balancing Chemical Equations	
		Describe chemical reactions by writing word equations and formula equations.
		Science Practice: Identify and use special symbols properly in chemical equations.
		Use the law of conservation of mass to balance chemical equations.
	Types of Reactions	
		Classify a reaction as synthesis, decomposition, single replacement, double replacement, or combustion.
		Identify and characterize the types of reactions, including synthesis, decomposition, combustion, single replacement, and double replacement.
		Science Practice: Predict the products of a reaction using the activity series.
		Use the activity series to determine whether a single replacement reaction will occur.
	Lab: Types of Reactions	
		Identify the reactants and products of a reaction performed in a laboratory setting.
		Science Practice: Use experimental data to classify a reaction.
		Write balanced equations for a reaction performed in a laboratory setting.
Stoichiometry		
	Molar Masses	
		Define a mole and explain its role in the measurement of matter.
		Determine the molar mass of a molecule from its chemical formula.
		Explain the relationship between the mole and Avogadro's number.
		Science Practice: Perform math calculations to determine the number of particles in a given sample of a substance.

Unit	Lesson	Lesson Objectives
	Percent Composition and Molecular Formula	
		Determine the empirical formula and the molecular formula of a substance through calculations.
		Explain the relationship between the empirical formula and the molecular formula of a compound.
		Science Practice: Use math to solve percent composition problems and to determine empirical and molecular formulas.
		Solve problems to calculate percent composition.
	Introduction to Stoichiometry	
		Perform stoichiometric calculations to determine the mole-to-mole relationships between reactants and products of a reaction.
		Science Practice: Use mathematical procedures, including dimensional analysis and significant figures, when solving mole-to-mole stoichiometry problems.
		Use a balanced equation to write mole ratios correctly to use in stoichiometry problems.
	Stoichiometric Calculations	
		Identify and solve stoichiometric problems that relate mass to moles and mass to mass.
		Perform stoichiometric calculations to determine mass relationships between reactants and products of a reaction.
		Science Practice: Use mathematical procedures, including dimensional analysis and significant figures, when solving mole-to-mass, mass-to-mole, and mass-to-mass stoichiometric problems.
		Use molar mass to write conversion factors that convert between mass and moles.
	Limiting Reactant and Percent Yield	
		Calculate the percent yield of a reaction.
		Identify the limiting and excess reactants for a given reaction.
		Science Practice: Use mathematical procedures, including dimensional analysis and significant figures, when solving limiting reactant and percent yield stoichiometry problems.
		Use the limiting reactant to predict the theoretical yield of a reaction.
The Gas Laws		
	Gas Laws	
		Apply Dalton's law of partial pressures to describe the composition of gases.
		Define partial pressure.
		Derive the combined gas law from Boyle's law, Charles's law, and Gay-Lussac's law.
		Science Practice: Make a table to compare the various gas laws.
		State Boyle's law, Charles's law, and Gay-Lussac's law, and apply these laws to calculate the relationships among volume, temperature, and pressure.
	Lab: Charles's Law	
		Calculate relationships between volume and temperature according to Charles's law.
		Science Practice: Analyze and interpret data gathered in an investigation about Charles's law.
	Lab: Boyle's Law	
		Calculate relationships between volume and pressure according to Boyle's law.
		Perform an investigation that demonstrates the relationship between the volume and pressure of a gas.
		Science Practice: Obtain, evaluate, and communicate information gathered in an investigation about Boyle's law.

Unit	Lesson	Lesson Objectives
	The Ideal Gas Law	
		Explain how Avogadro's law, or principle, can be combined with other gas laws to describe the relationships among pressure, temperature, volume, and number of moles of a gas.
		Science Practice: Use math to solve ideal gas law problems.
		Solve problems using the ideal gas law.
		State the ideal gas law, which relates pressure, temperature, and volume of an ideal gas.
	Gas Stoichiometry	
		Identify the molar volume of a gas at standard temperature and pressure.
		Perform stoichiometric calculations to determine mass and volume relationships between reactants and products for reactions involving gases.
		Science Practice: Calculate answers to the correct number of significant figures when solving gas stoichiometry problems.
Reaction Rate and Energy in Chemical Reactions		
	Energy	
		Describe the law of conservation of energy.
		Differentiate among the various forms of energy, including kinetic energy, potential energy, chemical energy, and thermal energy.
		Explain that energy can be transformed from one form to another.
		Science Practice: Integrate concepts from both chemistry and physics to analyze energy transformations and the conservation of energy.
	Heat	
		Describe heat flow in terms of the motion of atoms or molecules.
		Distinguish between exothermic chemical processes and endothermic chemical processes.
		Relate temperature to the average molecular kinetic energy.
		Science Practice: Analyze and interpret information about a reaction to classify the reaction as either an exothermic process or an endothermic process.
	Enthalpy, Entropy, and Free Energy	
		Compare spontaneous and nonspontaneous reactions.
		Define free energy and use the Gibbs free energy equation to determine whether a reaction is spontaneous.
		Describe and give examples of entropy.
		Differentiate "enthalpy" and "entropy" and describe how enthalpy and entropy affect a reaction's spontaneity.
		Science Practice: Use mathematics to solve problems involving the Gibbs free energy equation.
	Reaction Rate	
		Describe collision theory and how it is related to reactions.
		Explain how various factors, including concentration, temperature, and pressure, affect the rate of a chemical reaction.
		Explain the concept of reaction rate.
		Science Practice: Use the collision theory model to explain how reactions happen.
	Lab: Reaction Rate	
		Demonstrate the effects of changing temperature and particle size on the rate of a chemical reaction.
		Develop reasonable conclusions in an investigation about reaction rate and generate explanations for the observed results.
		Science Practice: Plan and perform controlled tests of multiple variables using repeated trials during an investigation about reaction rate.

Unit	Lesson	Lesson Objectives
Mixtures and Solutions		
	Mixtures and Solutions	
		Describe heterogeneous mixtures, including suspensions and colloids.
		Describe homogeneous mixtures, such as solutions.
		Identify nonaqueous solutions.
		Identify the components of a solution.
		Science Practice: Build vocabulary by properly using the terms mixture, solution, solute, and solvent.
	Solutions and Solubility	
		Define solubility and differentiate between saturated, supersaturated, and unsaturated solutions.
		Describe the dissolving process on the molecular level.
		Identify factors affecting the rate at which a substance dissolves.
		Investigate factors that influence solubility.
		Science Practice: Interpret, analyze, and make inferences from solubility graphs.
	Lab: Solubility	
		Accurately read the temperature in °C to know how temperature affects saturation.
		Formulate an investigative question to scientifically investigate how temperature affects solubility.
		Investigate how the temperature of a solvent affects the solubility of a solid.
		Science Practice: Plan and carry out an investigation to test factors affecting solubility.
	Measures of Concentration: Molarity	
		Calculate the concentration of solutions in units of molarity.
		Define concentration.
		Science Practice: Use mathematics and computational thinking to solve problems involving molarity.
		Solve stoichiometry problems involving molarity.
		Use molarity to calculate dilutions of solutions.
	Measures of Concentration: Molality and Other Calculations	
		Calculate the concentration of a solution in grams per liter, parts per million, and percent concentration.
		Calculate the concentration of a solution in terms of molality.
		Science Practice: Use different units to express concentrations and understand the relationships between the different measures of concentration.
Acids and Bases		
	Properties of Acids and Bases	
		Describe applications of acids and bases.
		Describe the observable properties of acids.
		Describe the observable properties of bases.
		Science Practice: Determine the meaning of the key terms acid and base as they are used in chemistry.

Unit	Lesson	Lesson Objectives
	Arrhenius, Bronsted-Lowry, and Lewis Acids and Bases	
		Describe the Arrhenius definitions of acids and bases.
		Describe the Bronsted-Lowry definitions of acids and bases.
		Describe the Lewis definitions of acids and bases.
		Identify conjugate acids and conjugate bases in a Bronsted-Lowry acid-base reaction.
		Science Practice: Describe how Arrhenius's, Bronsted's, Lowry's, and Lewis's competing interpretations of the same evidence are useful in different ways.
	pH	
		Convert between pH and hydrogen ion concentration, and between pOH and hydroxide ion concentration.
		Convert between pH and pOH, and between hydrogen ion concentration and hydroxide ion concentration.
		Define pH and pOH.
		Describe the self-ionization of water.
		Science Practice: Solve scientific problems involving pH using logarithmic functions.
		Use the pH scale to characterize the acidity and basicity of solutions.
	Lab: Measuring pH	
		Measure the pH of various substances using a universal indicator and its key.
		Science Practice: Calibrate the scale for a pH indicator by comparing it to data measured using a known scale.
	Neutralization Reactions	
		Define salt and describe the observable properties of salts and salt solutions.
		Predict the products of acid-base neutralization reactions.
		Science Practice: Use domain-specific symbols to correctly write net ionic equations.
		Write equations and net ionic equations for neutralization reactions.
Organic Chemistry and Biochemistry		
	Organic Compounds	
		Describe carbon's unique bonding characteristics that make the diversity of carbon compounds possible.
		Explain the difference between structural isomers and geometric isomers.
		Read and draw structural formulas of organic compounds.
		Science Practice: Use different models to represent the same idea (ball-and-stick models, space-filling models, and structural formulas) and explain the usefulness and limitations of each kind of model.
	Carbohydrates and Lipids	
		Compare monosaccharides, disaccharides, and polysaccharides.
		Differentiate between saturated and unsaturated fats.
		Identify carbohydrates and where they are found in nature.
		Identify lipids and where they are found in nature.
		Science Practice: Describe the functions of carbohydrates and lipids in nature.

Unit	Lesson	Lesson Objectives
	Amino Acids and Proteins	
		Describe amino acids as the building blocks of proteins.
		Describe the biological functions of proteins.
		Describe the R-group structure of amino acids, and explain how amino acids combine to form the polypeptide backbone structure of proteins.
		Science Practice: Determine the meaning and analyze the relationships among the following terms: amino acids, proteins, and polymerization.
	Metabolism	
		Describe how cells use ATP.
		Explain how metabolism releases energy.
		Science Practice: Analyze a sequence (i.e., the ATP cycle) that is characteristic of natural phenomena.
	Nucleic Acids	
		Describe RNA and explain how it is related to protein synthesis.
		Describe the structure and replication of DNA.
		Describe uses of genetic engineering.
		Science Practice: Evaluate the impact of genetic engineering on society.
Nuclear Chemistry		
	Types of Radioactive Decay	
		Differentiate between chemical reactions and nuclear reactions.
		Identify types of radioactive decay.
		Science Practice: Translate technical information expressed in words in a text about nuclear radiation into a visual form, such as a table, to compare the different types of radiation.
	Balancing Nuclear Reactions	
		Balance nuclear equations by balancing both mass and atomic numbers.
		Science Practice: Determine the meaning of nuclide symbols and use those symbols to balance nuclear equations.
		Write symbols for nuclides using mass numbers and atomic numbers.
	Half-Life	
		Calculate the amount of a radioactive substance remaining after an integral number of half-lives have passed.
		Calculate the number of half-lives that have passed given mass data for the radioactive substance.
		Describe what a half-life is.
		Science Practice: Solve scientific problems by substituting quantitative values.
	Nuclear Fission and Nuclear Fusion	
		Explain and compare fission and fusion reactions.
		Relate the role of nuclear fusion to the production of essentially all elements heavier than helium.
		Science Practice: Justify the need for peer review in science.

Earth Science and Space Science

Course Overview and Syllabus

Course Number: SC3207 IC

Grade level: 8/9

Prerequisite Courses: None

Credits: 1.0

Course Description

This full-year course introduces students to the study of Earth and its place in the universe. The course leads students toward a clearer understanding of geology, oceanography, meteorology, and astronomy. As students refine and expand their understanding of Earth science, they will apply their knowledge in investigations that require them to ask questions and explore the world around them. Throughout the course, students will also solve problems, reason abstractly, and learn to think critically.

Course Objectives

Throughout the course, you will meet the following goals:

- Examine the interactions of Earth's systems and cycles.
- Investigate the properties and formation of rocks and minerals.
- Relate the structure of Earth's interior to plate movement.
- Explore the effects of physical processes on geologic features.
- Investigate the evidence that supports the theory that Earth has evolved.
- Analyze atmospheric conditions and predict the weather.
- Demonstrate an understanding of the universe and solar system.
- Explain the causes and effects of environmental change, including resource use.

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below:

Grading Category	Weight
Quiz	20%
Test	30%
Exam	20%
Assignment	10%
Lab	10%
Additional	0%
Project	10%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Structure of the Universe
Unit 2: Earth's History
Unit 3: Earth's Structure and Plate Tectonics
Unit 4: Weathering, Erosion, and Deposition
Unit 5: Earth's Hydrosphere and Atmosphere
Unit 6: Weather and Climate
Unit 7: Earth's Natural Resources

Unit	Topic	Lesson	Lesson Objectives
The Scientific Method			
	Scientific Inquiry and Analysis		
		Scientific Inquiry	
			Compare and contrast scientific theories and scientific laws.
			Describe the steps involved in scientific inquiry.
			Differentiate between an observation and an inference.
			Explain the relationship between variables and controls in an experiment.
		Laboratory Tools and Safety	
			Describe the use of various common laboratory tools.
			Differentiate between light, dissecting, and electron microscopes.
			Explain the importance of following common lab rules and procedures.
			Identify safety equipment found in a science lab.
		Scientific Measurement	
			Calculate values utilizing the metric conversion process.
			Describe the use of significant figures and rounding in scientific measurement.
			Explain the purpose of utilizing the metric system in scientific measurement.
			Identify the basic SI units utilized in scientific measurement.
		Scientific Models	
			Describe three types of scientific models.
			Explain the purpose of scientific models.
			Identify limitations of scientific models.
		Critical Thinking in Science	
			Evaluate three everyday uses of critical thinking.
			Explain the importance of critical thinking to science.
			Identify components of critical thinking.
Ecology			
	A History of Environmental Science		
		Skills Lesson: Interpreting Observations	
			Describe patterns and trends of an observed event or process.
			Interpret observations using trends and patterns.
			Observe an event or process.

Unit	Topic	Lesson	Lesson Objectives
		The Study of Environmental Science	
			Define the components of environmental science.
			Describe the interdependence of organisms in the environment.
			Discuss human impacts on the Earth.
			Skills used: making logical connections, understanding cause and effect, interpreting observations
		Environmental Scientists and Ecologists	
			Examine the contributions of environmental scientists to today's environment.
			Skills used: making predictions, identifying trends
			Summarize the work of famous environmental scientists of the past.
		Careers in Environmental Science	
			Describe the job of an environmental scientist.
			Discuss possible future careers and fields in environmental science.
			Explore additional careers in environmental science.
			Skills used: identifying trends, making predictions, compare and contrast, interpreting observations
	Introduction to Ecology		
		Ecology 101	
			Compare and contrast major ecosystems found on Earth.
			Describe the levels of organization in the biosphere.
			Identify the major biomes found on Earth.
			Skills used: create a flow chart, compare and contrast
		Ecology 102	
			Describe changes that can occur within an ecosystem.
			Evaluate the effects of different factors on ecosystem stability.
			Identify factors that can cause change within an ecosystem.
			Skills used: understanding cause and effect, making logical connections, interpreting observations
		Trophic Levels and Food Webs	
			Analyze relationships between producers, consumers, and decomposers in an ecosystem.
			Analyze the effects of changes in populations on food web dynamics.
			Differentiate between three types of energy pyramids.
			Explain how relationships between organisms in an ecosystem contribute to energy flow within a food chain.
			Skills used: compare and contrast, create a structure diagram, understanding cause and effect, interpreting observations

Unit	Topic	Lesson	Lesson Objectives
		Adaptation	
			Describe the development of the theory of evolution.
			Explain the theory of evolution.
			Relate adaptations of organisms to resource competition.
			Skills used: create a timeline, making logical connections
		Global Connection: Changing Migratory Patterns	
			Explain how migratory patterns change in response to alterations in an ecosystem.
	Habitats		
		Skills Lesson: Contrasting Observations or Objects	
			Distinguish differences between the two events or objects.
			List characteristics of two or more observable events or objects.
			Organize characteristics on a chart or graph.
		Organismal Relationships	
			Compare and contrast mutualism, parasitism, and commensalism.
			Describe three types of interactions between organisms in an ecosystem.
			Explain the effects of competitive exclusion on an ecosystem.
			Skills used: compare and contrast, understanding cause and effect
		Biodiversity	
			Analyze the effects of local evolution or migration on an ecosystem.
			Explain how changes in biodiversity impact an ecosystem.
			Predict the impact of removing or adding organisms on a food chain.
			Skills used: making predictions, making logical connections
		Land Habitats	
			Differentiate between biotic and abiotic factors in various ecosystems.
			Explain the adaptations of indigenous species to their respective ecosystems.
			Skills used: compare and contrast
		Aquatic Habitats	
			Compare and contrast the components of marine and freshwater ecosystems.
			Differentiate between terrestrial and aquatic energy pyramids.
			Skills used: compare and contrast

Unit	Topic	Lesson	Lesson Objectives
	Population Dynamics		
		Population Size	
			Analyze population patterns within ecosystems.
			Evaluate the effect of various factors on population size.
			Identify biotic and abiotic factors that limit population growth.
			Skills used: interpreting data, understanding cause and effect, making logical connections
		Population Genetics	
			Describe the effect of genetics on the growth rate and carrying capacity of a population.
			Evaluate the effects of events on gene flow.
			Skills used: interpreting data, understanding cause and effect
		Determining Population Size	
			Compare and contrast various methods of determining population size.
			Compute population density.
			Discriminate between major population growth models.
			Skills used: interpreting data, compare and contrast, calculating data
		Measuring Populations	
			Compare and contrast various types of population distribution.
			Differentiate between stabilizing, disruptive, and directional selection utilizing a graph.
			Illustrate the structure of a given population demographic.
			Skills used: compare and contrast, create a structure diagram, interpreting data
		Global Connection: Human Impact on Population Size	
			Evaluate human impact on wildlife population size.
	Arid and Semi-Arid Biomes		
		Skills Lesson: Making Comparisons	
			Contrast unlike characteristics of two or more phenomena.
			Group characteristics by similarities and differences.
			Identify like systems or events to be compared and contrasted.
			List characteristics of the compared systems or events.
		Characteristics of Biomes	
			Compare and contrast artificial and natural changes within a biome.
			Describe the impact of humanity on Earth's biomes.
			Identify the characteristics used to define all biomes.
			Skills used: compare and contrast, understanding cause and effect, identifying trends
			Summarize the history of biomes on Earth.

Unit	Topic	Lesson	Lesson Objectives
		Desert and Desert-Scrub Biomes	
			Evaluate ways organisms have adapted to desert and desert-scrub environments.
			Identify the characteristics of desert and desert-scrub biomes.
			Skills used: making logical connections, compare and contrast
		The Chaparral	
			Evaluate ways organisms have adapted to chaparral.
			Identify the characteristics of chaparral biomes.
			Skills used: making logical connections
		Alpine and Taiga Biomes	
			Evaluate ways organisms have adapted to the alpine and taiga biomes.
			Identify the characteristics of the alpine and taiga biomes.
			Skills used: making logical connections, compare and contrast
		The Tundra	
			Evaluate ways organisms have adapted to the tundra.
			Identify the characteristics of the tundra.
			Skills used: making logical connections
	Temperate, Wet, and Aquatic Biomes		
		Savanna and Grassland Biomes	
			Evaluate ways organisms have adapted to the savanna and grasslands.
			Identify the characteristics of the savanna and grassland biomes.
			Skills used: making logical connections, compare and contrast
		Deciduous Forests	
			Evaluate ways organisms have adapted to deciduous forests.
			Identify the characteristics of deciduous forests.
			Skills used: making logical connections
		The Rainforest	
			Evaluate ways organisms have adapted to the rainforest.
			Identify the characteristics of the rainforest.
			Skills used: making logical connections

Unit	Topic	Lesson	Lesson Objectives
		Freshwater and Marine Biomes	
			Compare and contrast the adaptations of organisms in the aquatic biomes to their respective environments.
			Describe how humans utilize resources from each of the aquatic biomes.
			Explain how human understanding of aquatic ecosystems has changed throughout history.
			Identify characteristics that are unique to each of the aquatic biomes.
			Skills used: compare and contrast, identifying trends
		Global Connection: Why Invasive Species Thrive	
			Relate the ability of invasive species to thrive in their new habitat to resource competition.
The Biosphere			
	Earth's Systems		
		Skills Lesson: Modeling Systems and Cycles	
			Determine the main parts or processes of the system or cycle.
			Identify a system or cycle to be modeled.
			Model the main parts or processes of the system or cycle.
			Organize the parts or processes sequentially.
		Systems of the Biosphere	
			Describe Earth's systems in terms of energy, matter, time, and space.
			Explain the interactions between Earth's systems.
		Patterns in Systems	
			Describe various patterns found in the Earth system.
			Identify methods of measuring constancy and change in a system.
	Earth's Cycles		
		The Cycles of Matter	
			Describe various cycles of matter that take place on Earth.
			Evaluate the role played by cycles in sustaining life.
			Explain the change in energy that occurs between each cycle in an ecosystem.
		The Water Cycle	
			Describe the steps of the water cycle.
			Explain the relationship between living organisms and the water cycle.
			Identify possible sources of water contamination.
		Effects of Cycles on Ecosystems	
			Describe the effects of abiotic cycles on local ecosystems.
			Describe the movement of carbon compounds through a food web.
			Explain how fluctuations in abiotic cycles influence populations.

Unit	Topic	Lesson	Lesson Objectives
		Global Connection: Recycling on Earth	
			Compare human recycling techniques to similar cycles in nature.
	The Air		
		Skills Lesson: Evaluating Explanations	
			Categorize researched information as being factual or biased.
			Evaluate the given explanation based on researched data.
			Identify a given explanation for an event or process.
			Research data relating to the explanation.
		Atmospheric Pollution	
			Differentiate between primary and secondary pollutants.
			Examine the effects of pollution on health.
			Identify various common atmospheric pollutants.
			Overview the composition and function of each layer of the atmosphere.
			Skills used: evaluate the validity of an explanation
		Ozone	
			Analyze the importance of the ozone layer in sustaining life.
			Compare and contrast various factors that cause ozone depletion.
			Explain how the ozone layer is formed.
			Relate fluctuations in ozone to human health and the environment.
		Air Quality	
			Assess the methods that can be utilized to improve air quality.
			Explain the impact of air pollution on the environment.
			Identify various causes of air pollution.
			Propose alternative methods of improving air quality.
			Skills used: compare and contrast support and opposition
	Climate		
		Succession	
			Differentiate between primary and secondary succession in ecosystems.
			Explain the importance of succession in maintaining ecosystems.
			Identify various causes of succession in ecosystems.
		Climate and Change in Ecosystems	
			Compare and contrast the benefits and disadvantages of natural change to ecosystems.
			Describe environmental factors that can cause changes in ecosystems.
			Identify various effects of climate changes on an ecosystem.

Unit	Topic	Lesson	Lesson Objectives
		Global Change	
			Analyze environment changes and their connection to global warming.
			Assess current theories regarding global climate change.
			Predict future changes in the global climate.
			Skills used: making predictions based on data
		A History of Global Climate Change	
			Analyze various theories related to global warming.
			Compare current and past global climate trends.
			Describe the effects of greenhouse gases on the atmosphere.
			Explain how long-term global climate shifts impact Earth's ecosystems.
			Skills used: compare and contrast support and opposition
		Global Connection: Algal Blooms	
			Connect the formation of algal blooms to climate change.
The Land			
	Shaping Earth		
		Skills Lesson: Plotting Trends and Patterns	
			Categorize recorded observations based on similarities and differences.
			Interpret trends and patterns within the recorded data.
			Record observations of an event or process.
		Life and Earth's Crust	
			Describe the composition of each layer of the Earth.
			Evaluate the interdependence of Earth's crust and its organisms.
			Explain the structure and function of the Earth's crust.
			Skills used: create graph, map, chart
		Plate Tectonics	
			Describe the impact of continental shifting on local environments.
			Explain the theory of plate tectonics.
			Relate the movement of the continents to changes in weather patterns.
			Skills used: create graph, map, chart

Unit	Topic	Lesson	Lesson Objectives
		Weathering and Erosion	
			Compare and contrast weathering and erosion.
			Describe the effects of natural erosion on the environment.
			Distinguish between chemical and physical weathering.
			Explain the impact of artificial erosion on the environment.
			Skills used: create graph, map, chart
	Land Use and Management		
		Human Use of Land	
			Assess the effects of human land usage on ecosystems.
			Compare and contrast ways humans are working to reduce the impact of land use on the environment.
			Describe possible future consequences of land use to the environment.
			Skills used: determine the cause and predict the effect
		Minerals and Mining	
			Compare and contrast various mineral extraction methods.
			Describe the long-term consequences of large scale mineral extraction to the Earth.
			Explain the impact of mining on local populations.
			Identify uses of minerals.
			Skills used: determine the cause and predict the effect
		Urban Growth	
			Compare and contrast various urban and suburban migration patterns seen on the Earth.
			Describe the effects of upward growth on local environments.
			Describe the effects of urban sprawl on local environments.
			Skills used: determine the cause and predict the effect
		Land Management and Planning	
			Describe differences in the use of public land and private land.
			Describe large-scale land management methods implemented by governments and corporations.
			Determine possible impacts of land management methods on the environment.
			Skills used: determine the cause and predict the effect
		Global Connection: Deforestation in Haiti	
			Assess how deforestation in Haiti impacts the environment.

Unit	Topic	Lesson	Lesson Objectives
Forests and Soil			
	Vanishing Forests		
		Skills Lesson: Constructing Valid Criticisms	
			Analyze data to determine reliability and bias.
			Construct a valid criticism of the possible outcome based on the data.
			Identify factors contributing to the possible outcome of a process.
			Research data relating to the contributing factors.
		The Importance of Trees	
			Analyze the consequences of human use of trees.
			Describe the relationship between trees and other organisms.
			Explain the impact of trees on air quality.
			Identify methods in which trees are utilized by humans.
			Skills used: constructing valid criticism
		Rainforest Loss	
			Compare and contrast the effectiveness of current rainforest conservation efforts.
			Evaluate the impact of rainforest loss over the last 100 years.
			Explain how rainforest resources are utilized throughout the globe.
			Identify the locations of the world's rainforests.
			Skills used: constructing valid criticism
		Modern Forestry	
			Analyze the role of forests as carbon sinks.
			Compare and contrast current methods of forest management.
			Describe the main roles of a forester.
			Skills used: constructing valid criticism
		Fire and Nature	
			Analyze methods of fire utilization within various environments.
			Evaluate ways that wildfire benefits ecosystems.
			Predict how fire can be used to further benefit the environment.
			Skills used: constructing valid criticism

Unit	Topic	Lesson	Lesson Objectives
	Soil		
		What is Soil?	
			Characterize the major horizons in soil.
			Compare processes of soil formation in various environments.
			Describe the composition of soil.
			Skills used: selecting valid resources
		Soil Formation	
			Assess the role of microorganisms in soil.
			Explain the relationship between microorganisms, humus, and soil health.
			Identify the properties of soil.
			Skills used: selecting valid resources
		Soil Around the World	
			Compare and contrast the soil composition of different ecosystems.
			Describe ways in which humans impact soil.
			Explain the relationships between organisms and soil of different ecosystems.
		Soil and Agriculture	
			Compare and contrast various agricultural practices around the world.
			Evaluate various methods used in agriculture to minimize soil depletion and erosion.
			Skills used: selecting valid resources
		Global Connection: Microflora and Microfauna	
			Evaluate how agricultural practices affect microflora and microfauna.
The Water			
	Marine Ecosystems		
		Skills Lesson: Proposing Solutions	
			Determine the desired outcome of the identified problem.
			Identify an unresolved problem or dilemma.
			Propose a possible solution.
		Ocean Exploration	
			Discuss possible applications of recent discoveries within the ocean.
			Examine how recent discoveries in abyssal zones have impacted scientific theories.
			Explore the relationship between technology and new developments in oceanography.

Unit	Topic	Lesson	Lesson Objectives
		Salt Marshes and Mangroves	
			Explain how utilization of mangrove and salt marshes has changed over time.
			Identify characteristics of salt marsh and mangrove habitats.
			Propose alternative ways to utilize resources in mangroves and salt marshes.
			Skills used: forming a valid hypothesis
		Coral Reefs	
			Analyze the effectiveness of current efforts to preserve coral reefs.
			Describe the characteristics of a coral reef.
			Examine causes of coral reef loss.
			Explain the relationship between aquatic organisms and the coral reef.
			Skills used: forming a valid hypothesis
		Issues Affecting Marine Ecosystems	
			Describe how fisheries and ocean bottom trawling impact marine ecosystems.
			Evaluate methods humans are using to reduce their impact on marine ecosystems.
			Identify the impacts of floating refuse on marine ecosystems.
	Freshwater Ecosystems		
		Pools, Ponds, and Lakes	
			Assess the relationships between organisms that live in pools, ponds, and lakes.
			Compare and contrast the characteristics of pools, ponds, and lakes.
			Describe the cause of eutrophication and its effects on the environment.
			Differentiate littoral and riparian areas.
		Streams and Rivers	
			Assess the relationships between organisms that live in streams and rivers.
			Compare and contrast the characteristics of streams and rivers.
			Describe the impact of current and oxygen content on biodiversity in streams and rivers.
			Explain various ways humans impact rivers and streams.
		Wetlands	
			Assess the biodiversity of organisms found in wetlands.
			Differentiate various types of wetlands.
			Distinguish between the main types of water found in wetlands.
			Explain how the wetlands filter and clean water.
		Global Connection: Water Management and Katrina	
			Analyze the effect of canals and levees on wetlands.

Unit	Topic	Lesson	Lesson Objectives
	Water Ecology		
		Skills Lesson: Proposing Logical Alternatives	
			Compare the positive and negative effects of previously enacted resolutions to a problem.
			Identify an unresolved problem.
			Propose a logical alternative to an unresolved problem or question.
			Utilize scientific data and research to establish cause and effect.
		Nonnative Species In Aquatic Ecosystems	
			Describe how invasive species impact an aquatic ecosystem.
			Examine various methods of addressing environmental problems that were traditionally solved by utilizing nonnative species.
			Identify ways that invasive species are introduced into an aquatic ecosystem.
		Changing Waterways	
			Describe naturally occurring changes to waterways.
			Evaluate ways humans impact waterways.
			Propose alternative practices to reduce human impact on waterways.
		The Water We Use	
			Assess the impact of water consumption and diminishing supplies on human activities.
			Describe the availability of water across the globe.
			Identify sources of potable and non-potable water.
		Water Pollution	
			Describe the effects of water pollution on local populations.
			Explain ways that humans can reduce water pollution.
			Identify sources of water pollution.
		Groundwater	
			Assess the consequences of overuse and contamination of groundwater.
			Describe the location and importance of the water table.
			Explain how human use of groundwater has changed over time.
			Skills used: determining independent and dependent variables
		Water Policy	
			Compare and contrast the processes of water reclamation, greywater use, and desalination.
			Identify laws and regulations in the United States that address water use and management.
			Propose possible consequences of failing to conserve water.

Unit	Topic	Lesson	Lesson Objectives
Energy and Resources			
	Energy in Ecosystems		
		Energy Transformation	
			Describe the impact of energy transformations on ecosystems.
			Discuss the main forms of energy in an ecosystem.
			Explain how energy is transformed and conserved as it changes from one form to another.
			Skills used: making logical connections, creating diagrams, compare and contrast
		Energy Transfer	
			Describe how the amount of available energy changes between trophic levels in a food chain.
			Explain the relationship between entropy and usable energy in a food chain.
			Outline the flow of energy in an ecosystem.
			Skills used: making logical connections, creating a flow chart
		Photosynthesis in Plants	
			Distinguish between the main types of carbon fixation.
			Explain the process of photosynthesis in plants.
			Skills used: proposing logical alternatives
		Global Connection: Deep Sea Ecologies	
			Explain the process of energy transfer in deep sea ecologies.
	Resources		
		Skills Lesson: Conducting Valid Internet Research	
			Analyze gathered information for bias.
			Identify a topic to be researched.
			Select valid internet data based on analysis.
			Utilize internet search engines to gather information regarding the topic.
		What Are Natural Resources?	
			Explain how fossil fuels are formed.
			Explain how natural resources are produced.
			Explain how resource availability is limited by rates of use and renewal.
			Skills used: making predictions, compare and contrast, researching with technology, making logical connections
		Nuclear Power	
			Compare and contrast the processes of nuclear fission and nuclear fusion.
			Describe uses of nuclear energy.
			Examine possible consequences of using nuclear energy.
			Skills used: researching with technology, modeling systems, compare and contrast, making logical connections

Unit	Topic	Lesson	Lesson Objectives
		Resource Conservation	
			Assess the availability and allocation of resources.
			Compare and contrast uses of renewable and nonrenewable resources.
			Discuss problems associated with the use of non-local resources.
			Propose alternatives to using nonrenewable resources.
			Skills used: compare and contrast, proposing alternative solutions, researching with technology
		The Social Costs of Resource Use	
			Compare and contrast the costs and benefits of using renewable and nonrenewable resources.
			Evaluate the consequences of world dependence on fuels.
			Explain how technology can be utilized in resource conservation efforts.
			Skills used: making logical connections, evaluating explanations, compare and contrast
Societies and Policy			
	Ethics and Policy		
		Governments and Business	
			Assess the impact of government and business on energy efficiency.
			Compare the effects of government sanctioned activities on ecosystems.
			Illustrate how conservation efforts have positively impacted ecosystems.
			Skills used: making logical connections, interpreting observations, supporting claims, making predictions, compare and contrast
		Informed Policy	
			Describe the influence that scientific knowledge has on society.
			Evaluate the benefits of monitoring environmental parameters when making policy regarding resource use.
			Identify contributing factors to environmental policy decisions.
			Skills used: compare and contrast, making logical connections, supporting claims, understanding cause and effect
		Impact of Policy	
			Assess the potential environmental consequences of policies that address social problems.
			Evaluate the effects of policies on global and local ecosystems.
			Propose possible effects of policies regarding sustainable land use.
			Skills used: supporting claims, plotting trends, making predictions, interpreting observations, compare and contrast
		Milestones and Turning Points	
			Describe the efforts of various countries to reduce resource and ecological depletion.
			Illustrate the impact of major milestones in environmental science.
			Predict possible milestones in environmental policy.
			Skills used: making valid criticisms, understanding cause and effect, researching with technology, making predictions, identifying trends

Unit	Topic	Lesson	Lesson Objectives
		Global Connection: Newfoundland Cod Fishery Collapse	
			Assess the societal and environmental consequences of government policy.
	The Environment and Society		
		Skills Lesson: Forming a Valid Hypothesis	
			Create an explanation based on the determined relationships.
			Determine relationships between contributing factors utilizing prior knowledge and research.
			Identify contributing factors of an observed event or process.
			Utilize the explanation to form a valid hypothesis.
		Limiting Factors and Humans	
			Describe factors that can impact the stability of a society.
			Explain the impact of limiting factors on human society.
			Identify the influences of environment on behavior.
			Skills used: making logical connections, supporting claims, understanding cause and effect, making valid criticisms
		Humans and the Energy Cycle	
			Describe the relationship between energy consumption and quality of living.
			Explain the impact of energy flow and cycles of matter on society.
			Skills used: creating a flow chart, making predictions, making logical connections, identifying trends and patterns
		Societal Consequences	
			Determine the impact of biotechnology on society and the environment.
			Explain the benefits and disadvantages of scientific and medical advancements to society.
			Skills used: supporting claims, researching with technology, making valid criticisms, understanding cause and effect
		The Environment and the Individual	
			Describe the relationship between the environment and personal health.
			Identify synthetic environmental health hazards.
			Skills used: making logical connections, interpreting observations, understanding cause and effect, compare and contrast
		Other Influences on Personal Health	
			Compare and contrast the impact of genetic and environmental factors on individual and public health.
			Describe the relationship between heredity and personal health.
			Skills used: compare and contrast, understanding cause and effect, making predictions
	The Environmental Impact of Humans and Technology		
		Natural Events and the Environment	
			Describe the impact of natural disasters on local populations.
			Explain how human activities impact the effects of natural disasters.
			Skills used: understanding cause and effect, graphing projections, making logical connections, supporting claims

Unit	Topic	Lesson	Lesson Objectives
		Human Events and the Environment	
			Describe the effects of large-scale environmental catastrophes.
			Evaluate the impact of different agricultural techniques on the environment.
			Skills used: making predictions, identifying trends, understanding cause and effect, graphing projections, compare and contrast, making valid criticisms, supporting claims
		Sustainability	
			Compare and contrast the impact of differing human lifestyles on sustainability.
			Describe future sustainability utilizing graphs and current data.
			Skills used: making predictions, identifying trends, understanding cause and effect, compare and contrast, graphing projections
		Effects of Technology	
			Describe the impact of energy producing technologies on the environment and the acquisition of natural resources.
			Explain how energy producing technologies impact land fertility and aquatic viability.
			Skills used: making predictions, identifying trends, researching with technology, understanding cause and effect, interpreting observations, evaluating explanations, making valid criticisms
		Success Stories	
			Describe various ways communities are attempting to restore and protect ecosystems.
			Give examples of emerging efforts designed to successfully address environmental issues.
			Skills used: understanding cause and effect
		Global Connection: Nuclear Fuel	
			Evaluate the environmental impact of using nuclear fuel.

Standards Alignment For Environmental Science - SC2028

Select a state below to see the standards alignments for this course. You can then roll your mouse over the "State ID" to see the full text of that standard.

State: PA | Document: Pennsylvania Core and Academic Standards - 2014 | Load Standards

The Scientific Method

Scientific Inquiry and Analysis

Lesson	Grade Level	State ID
Scientific Inquiry		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Laboratory Tools and Safety		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Scientific Measurement		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.
	11	CC.3.6.11-1
	11	CC.3.6.11-12.

	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Scientific Models		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Critical Thinking in Science		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Topic Test		

Ecology

A History of Environmental Science

Lesson	Grade Level	State ID
Skills Lesson: Interpreting Observations		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.I.

The Study of Environmental Science		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Environmental Scientists and Ecologists		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Careers in Environmental Science		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

Introduction to Ecology

Lesson	Grade Level	State ID
Ecology 101		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.

	11	CC.3.6.11-12.I.
Ecology 102		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Trophic Levels and Food Webs		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Adaptation		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Connection: Changing Migratory Patterns		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.B.5.

	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.

Topic Test

Habitats

Lesson	Grade Level	State ID
Skills Lesson: Contrasting Observations or Objects		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Organismal Relationships		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Biodiversity		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Land Habitats		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.B.4.

	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Aquatic Habitats		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

Population Dynamics

Lesson	Grade Level	State ID
Population Size		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Population Genetics		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Determining Population Size		
	11	CC.3.5.11-12
	11	CC.3.5.11-1
	11	CC.3.5.11-12
	11	CC.3.5.11-12.I.

	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Measuring Populations		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Connection: Human Impact on Population Size		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

Arid and Semi-Arid Biomes

Lesson	Grade Level	State ID
Skills Lesson: Making Comparisons	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Characteristics of Biomes		
	11	CC.3.5.11-12
	11	CC.3.5.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.B.1.

	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Desert and Desert-Scrub Biomes		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
The Chaparral		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Alpine and Taiga Biomes		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
The Tundra		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.

	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.

Topic Test

Temperate, Wet, and Aquatic Biomes

Lesson	Grade Level	State ID
Savanna and Grassland Biomes		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Deciduous Forests		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
The Rainforest		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Freshwater and Marine Biomes		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.

	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Connection: Why Invasive Species Thrive		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

The Biosphere

Earth's Systems

Lesson	Grade Level	State ID
Skills Lesson: Modeling Systems and Cycles		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Systems of the Biosphere		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Patterns in Systems		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.C.

	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.

Topic Test

Earth's Cycles

Lesson	Grade Level	State ID
The Cycles of Matter		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
The Water Cycle		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Effects of Cycles on Ecosystems		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Connection: Recycling on Earth		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.

	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.

Topic Test

The Air

Lesson	Grade Level	State ID
Skills Lesson: Evaluating Explanations		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Atmospheric Pollution		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Ozone		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
Air Quality		

	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.

Topic Test

Climate

Lesson	Grade Level	State ID
Succession		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Climate and Change in Ecosystems		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Change		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
A Hi[illegible]Global Climate Change		
	11	CC.3.5.11-1[illegible]
	11	CC.3.[illegible]
	11	CC.3.5.11-12.H.

	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Connection: Algal Blooms		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

The Land

Shaping Earth

Lesson	Grade Level	State ID
Skills Lesson: Plotting Trends and Patterns		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Life and Earth's Crust		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.
	11	CC.3.6.11-12.I.

Plate Tectonics		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Weathering and Erosion		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

Land Use and Management

Lesson	Grade Level	State ID
Human Use of Land		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Minerals and Mining		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.
	11	CC.3.6.11-12.I.

Urban Growth		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Land Management and Planning		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Connection: Deforestation in Haiti		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

Forests and Soil

Vanishing Forests

Lesson	Grade Level	State ID
Skills Lesson: Constructing Valid Criticisms		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.1.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.A.5.

	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
The Importance of Trees		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Rainforest Loss		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Modern Forestry		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Fire and Nature		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.B.2.

	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.

Topic Test

Soil

Lesson	Grade Level	State ID
What is Soil?		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Soil Formation		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Soil Around the World		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.B.4.

	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Soil and Agriculture		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Global Connection: Microflora and Microfauna		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

The Water

Marine Ecosystems

Lesson	Grade Level	State ID
Skills Lesson: Proposing Solutions	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
Oce loration		
	11	CC.3.5.11-12.D.

	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Salt Marshes and Mangroves		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Coral Reefs		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Issues Affecting Marine Ecosystems		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

Freshwater Ecosystems

Lesson	Grade Level	State ID
Pool[illegible] and Lakes		
	11	CC.3.5.11-1[illegible]
	11	CC.3.[illegible]
	11	CC.3.6.11-12.A.4.

	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Streams and Rivers		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Wetlands		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Connection: Water Management and Katrina		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

Water Ecology

Lesson	Grade Level	State ID
Skills Lesson: Proposing Logical Alternatives		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.

	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Nonnative Species In Aquatic Ecosystems		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Changing Waterways		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
The Water We Use		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Water Pollution		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.

	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Groundwater		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Water Policy		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

Energy and Resources

Energy in Ecosystems

Lesson	Grade Level	State ID
Energy Transformation		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Ene fer		
	11	CC.3.5.11-1
	11	CC.3.5.11-12.
	11	CC.3.6.11-12.A.4.

	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Photosynthesis in Plants		
	11	CC.3.5.11-12.C.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Connection: Deep Sea Ecologies		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

Resources

Lesson	Grade Level	State ID
Skills Lesson: Conducting Valid Internet Research	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.G.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.G.

	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
What Are Natural Resources?		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Nuclear Power		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Resource Conservation		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
The Social Costs of Resource Use		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12
	11	CC.3.6.11-12.B.3.

	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.

Topic Test

Societies and Policy

Ethics and Policy

Lesson	Grade Level	State ID
Governments and Business		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.1.
	11	CC.3.6.11-12.A.2.
	11	CC.3.6.11-12.A.3.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Informed Policy		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.1.
	11	CC.3.6.11-12.A.2.
	11	CC.3.6.11-12.A.3.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Impact of Policy		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.A.2.
	11	CC.3.6.11-12.A.3.

	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Milestones and Turning Points		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Global Connection: Newfoundland Cod Fishery Collapse		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

The Environment and Society

Lesson	Grade Level	State ID
Skills Lesson: Forming a Valid Hypothesis		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
Lim ctors and Humans		
	11	CC.3.5.11-12.D.

	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Humans and the Energy Cycle		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Societal Consequences		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.1.
	11	CC.3.6.11-12.A.2.
	11	CC.3.6.11-12.A.3.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
The Environment and the Individual		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-1
	11	CC.3.6.11-12.I.

Other Influences on Personal Health		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		

The Environmental Impact of Humans and Technology

Lesson	Grade Level	State ID
Natural Events and the Environment		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Human Events and the Environment		
	11	CC.3.5.11-12.A.
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.1.
	11	CC.3.6.11-12.A.2.
	11	CC.3.6.11-12.A.3.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.A.5.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Sustainability		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12
	11	CC.3.6.11-1
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.

	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Effects of Technology		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.H.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.F.
	11	CC.3.6.11-12.G.
	11	CC.3.6.11-12.H.
	11	CC.3.6.11-12.I.
Success Stories		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Global Connection: Nuclear Fuel		
	11	CC.3.5.11-12.D.
	11	CC.3.5.11-12.F.
	11	CC.3.5.11-12.I.
	11	CC.3.6.11-12.A.4.
	11	CC.3.6.11-12.B.1.
	11	CC.3.6.11-12.B.2.
	11	CC.3.6.11-12.B.3.
	11	CC.3.6.11-12.B.4.
	11	CC.3.6.11-12.B.5.
	11	CC.3.6.11-12.C.
	11	CC.3.6.11-12.D.
	11	CC.3.6.11-12.I.
Topic Test		


4

Standard ID	Standard Text	Edgenuity Lesson Name
SI.	Science as Inquiry, Grades 8-10	
SI.1.	Compare and contrast scientific theories.	
		Cell Theory
		Darwin's Theory
		Hypotheses, Theories, and Laws
		The History of Evolutionary Theory
SI.2.	Know that both direct and indirect observations are used by scientists to study the natural world and universe.	
		Scientific Inquiry
SI.3.	Identify questions and concepts that guide scientific investigations.	
		Scientific Inquiry
SI.4.	Formulate and revise explanations and models using logic and evidence.	
		Analyzing Data and Drawing Conclusions
		Collecting and Organizing Data
		Scientific Inquiry
SI.5.	Recognize and analyze alternative explanations and models.	
		Analyzing Evidence
3.1.	Biological Sciences	
3.1.A.	Organisms and Cells	
3.1.B.A.	BIOLOGY	
3.1.B.A1a.	Describe the common characteristics of life.	
		Characteristics of Life
3.1.B.A1b.	Compare and contrast the cellular structures and degrees of complexity of prokaryotic and eukaryotic organisms.	
		Animal and Plant Cells
		Bacteria
		Prokaryotic and Eukaryotic Cells
		Protists and Fungi
		The Function of Organelles
		The Kingdoms
		Types of Plants
3.1.B.A1c.	Explain that some structures in eukaryotic cells developed from early prokaryotic cells (e.g., mitochondria, chloroplasts).	
		Prokaryotic and Eukaryotic Cells

Standard ID	Standard Text	Edgenuity Lesson Name
3.1.B.A2a.	Identify the initial reactants, final products, and general purposes of photosynthesis and cellular respiration.	Cellular Respiration Light Dependent Reactions in Photosynthesis Light Independent Reactions in Photosynthesis
3.1.B.A2b.	Explain the important role of ATP in cell metabolism.	ATP
3.1.B.A2c.	Describe the relationship between photosynthesis and cellular respiration in photosynthetic organisms.	Cellular Respiration Light Dependent Reactions in Photosynthesis Light Independent Reactions in Photosynthesis Plant Structures
3.1.B.A2d.	Explain why many biological macromolecules such as ATP and lipids contain high energy bonds.	ATP Carbohydrates Lipids Proteins and Nucleic Acids
3.1.B.A2e.	Explain the importance of enzymes as catalysts in cell reactions.	Catalysts
3.1.B.A2f.	Identify how factors such as pH and temperature may affect enzyme function.	Catalysts
3.1.B.A3.	Explain how all organisms begin their life cycles as a single cell and that in multicellular organisms, successive generations of embryonic cells form by cell division.	Asexual and Sexual Reproduction Cell Differentiation and Specialization Mitosis
3.1.B.A4a.	Summarize the stages of the cell cycle.	Cell Cycle
3.1.B.A4b.	Examine how interactions among the different molecules in the cell cause the distinct stages of the cell cycle which can also be influenced by other signaling molecules.	Cell Cycle Meiosis Mitosis

Standard ID	Standard Text	Edgenuity Lesson Name
3.1.B.A4c.	Explain the role of mitosis in the formation of new cells and its importance in maintaining chromosome number during asexual reproduction.	Asexual and Sexual Reproduction Mitosis
3.1.B.A4d.	Compare and contrast a virus and a cell. Relate the stages of viral cycles to the cell cycle.	Viruses
3.1.B.A5a.	Relate the structure of cell organelles to their function (energy capture and release, transport, waste removal, protein synthesis, movement, etc).	Animal and Plant Cells Cell Homeostasis Lab: Diffusion Across a Semi-permeable Membrane The Function of Organelles
3.1.B.A5b.	Explain the role of water in cell metabolism.	Cell Homeostasis
3.1.B.A5c.	Explain how the cell membrane functions as a regulatory structure and protective barrier for the cell.	Animal and Plant Cells Cell Homeostasis Lab: Diffusion Across a Semi-permeable Membrane
3.1.B.A5d.	Describe transport mechanisms across the plasma membrane.	Cell Homeostasis Lab: Diffusion Across a Semi-permeable Membrane
3.1.B.A6.	Explain how cells differentiate in multicellular organisms.	Cell Differentiation and Specialization
3.1.B.A7a.	Analyze the importance of carbon to the structure of biological macromolecules.	Carbohydrates Lipids The Cycles of Matter The Importance of Carbon
3.1.B.A7b.	Compare and contrast the functions and structures of proteins, lipids, carbohydrates, and nucleic acids.	Carbohydrates Lipids Proteins and Nucleic Acids

Standard ID	Standard Text	Edgenuity Lesson Name
3.1.B.A7c.	Explain the consequences of extreme changes in pH and temperature.	Cell Homeostasis
	CHANGE AND CONSTANCY	
3.1.B.A8a.	Recognize that systems within cells and multicellular organisms interact to maintain homeostasis.	Cell Homeostasis Lab: Diffusion Across a Semi-permeable Membrane The Function of Organelles
	PATTERNS	
3.1.B.A8b.	Demonstrate the repeating patterns that occur in biological polymers.	Carbohydrates Lipids Proteins and Nucleic Acids
	SYSTEMS	
3.1.B.A8c.	Describe how the unique properties of water support life.	The Cycles of Matter The Importance of Water
3.1.B.	Genetics	
3.1.B.B.	BIOLOGY	
3.1.B.B1a.	Explain that the information passed from parents to offspring is transmitted by means of genes which are coded in DNA molecules.	Genetic Code
3.1.B.B1b.	Explain the basic process of DNA replication.	DNA and RNA Structure
3.1.B.B1c.	Describe the basic processes of transcription and translation.	Lab: Building Proteins from RNA Protein Synthesis
3.1.B.B1d.	Explain how crossing over, jumping genes, and deletion and duplication of genes results in genetic variation.	Chromosomes DNA Mutations Meiosis
3.1.B.B1e.	Explain how mutations can alter genetic information and the possible consequences on resultant cells.	DNA Mutations

Standard ID	Standard Text	Edgenuity Lesson Name
3.1.B.B2a.	Describe how the process of meiosis results in the formation of haploid gametes and analyze the importance of meiosis in sexual reproduction.	Asexual and Sexual Reproduction Meiosis
3.1.B.B2b.	Compare and contrast the function of mitosis and meiosis.	Asexual and Sexual Reproduction Meiosis Mitosis
3.1.B.B2c.	Illustrate that the sorting and recombining of genes in sexual reproduction results in a great variety of possible gene combinations in offspring.	Asexual and Sexual Reproduction
3.1.B.B3a.	Describe the basic structure of DNA, including the role of hydrogen bonding.	DNA and RNA Structure
3.1.B.B3b.	Explain how the process of DNA replication results in the transmission and conservation of the genetic code.	DNA and RNA Structure Genetic Code
3.1.B.B3c.	Describe how transcription and translation result in gene expression.	Lab: Building Proteins from RNA Protein Synthesis
3.1.B.B3d.	Differentiate among the end products of replication, transcription, and translation.	DNA and RNA Structure Genetic Code Lab: Building Proteins from RNA Protein Synthesis
3.1.B.B3e.	Cite evidence to support that the genetic code is universal.	Genetic Code
3.1.B.B4.	Explain how genetic technologies have impacted the fields of medicine, forensics, and agriculture.	Applications of DNA Technology Consequences of DNA Technology
	PATTERNS	
3.1.B.B5a.	Describe how Mendel's laws of segregation and independent assortment can be observed through patterns of inheritance.	Introduction to Genetics Lab: Mouse Genetics (One Trait) Laws of Inheritance Probability of Inheritance

Standard ID	Standard Text	Edgenuity Lesson Name
3.1.B.B5b.	Distinguish among observed inheritance patterns caused by several types of genetic traits (dominant, recessive, codominant, sex-linked, polygenic, incomplete dominance, multiple alleles).	Lab: Mouse Genetics (One Trait) Lab: Mouse Genetics (Two Traits) Laws of Inheritance Non-Mendelian Inheritance Sex-linked Inheritance
	CONSTANCY AND CHANGE	
3.1.B.B5c.	Explain how the processes of replication, transcription, and translation are similar in all organisms.	DNA and RNA Structure Genetic Code Protein Synthesis
3.1.B.B5d.	Explain how gene actions, patterns of heredity, and reproduction of cells and organisms account for the continuity of life.	Asexual and Sexual Reproduction Genetic Code Introduction to Genetics Laws of Inheritance Meiosis Mitosis
	SCALE	
3.1.B.B5e.	Demonstrate how inherited characteristics can be observed at the molecular, cellular, and organism levels.	Chromosomes Genetic Code Lab: Mouse Genetics (One Trait) Laws of Inheritance Meiosis
3.1.C.	Evolution	
3.1.B.C.	BIOLOGY	
3.1.B.C1a.	Describe species as reproductively distinct groups of organisms.	Organizational Hierarchy
3.1.B.C1b.	Analyze the role that geographic isolation can play in speciation.	Biogeographic Isolation

Standard ID	Standard Text	Edgenuity Lesson Name
3.1.B.C1c.	Explain how evolution through natural selection can result in changes in biodiversity through the increase or decrease of genetic diversity within a population.	Biogeographic Isolation Darwin's Theory Factors Affecting Biological Diversity Factors Affecting Genetic Variation Lab: Natural Selection
3.1.B.C1d.	Describe how the degree of kinship between species can be inferred from the similarity in their DNA sequences.	Biological Evidence and the Fossil Record Evolutionary Relationships
3.1.B.C2a.	Describe the theory suggesting that life on Earth arose as a single, primitive prokaryote about 4 billion years ago and that for the next 2 billion years, a huge diversity of single celled organisms evolved.	Biological Evidence and the Fossil Record Evolutionary Relationships Prokaryotic and Eukaryotic Cells
3.1.B.C2b.	Analyze how increasingly complex, multicellular organisms evolved once cells with nuclei developed.	Biological Evidence and the Fossil Record Evolutionary Relationships Prokaryotic and Eukaryotic Cells
3.1.B.C2c.	Describe how mutations in sex cells may be passed on to successive generations and that the resulting phenotype may help, harm, or have little or no effect on the offspring's success in its environment.	Chromosomal Changes DNA Mutations
3.1.B.C2d.	Describe the relationship between environmental changes and changes in the gene pool of a population.	Factors Affecting Genetic Variation Population Growth Population Size and Structure Populations and the Environment Succession and Extinction
	CONSTANCY AND CHANGE	
3.1.B.C3a.	Compare and contrast various theories of evolution.	Darwin's Theory The History of Evolutionary Theory
3.1.B.C3b.	Interpret data from fossil records, anatomy and physiology, and DNA studies relevant to the theory of evolution.	Biological Evidence and the Fossil Record Evolutionary Relationships

Standard ID	Standard Text	Edgenuity Lesson Name
	PATTERNS	
3.1.B.C3c.	Discuss the implications of a universal genetic code for evolution.	
		Evolutionary Relationships
		Genetic Code
BIO	Keystone Exams: Biology - Assessment Anchors and Eligible Content	
BIO.A.	Cells and Cell Processes	
BIO.A.1	Basic Biological Principles	
BIO.A.1.1	Explain the characteristics common to all organisms.	
BIO.A.1.1.1	Describe the characteristics of life shared by all prokaryotic and eukaryotic organisms.	
		Characteristics of Life
BIO.A.1.2	Describe relationships between structure and function at biological levels of organization.	
BIO.A.1.2.1	Compare cellular structures and their functions in prokaryotic and eukaryotic cells.	
		Animal and Plant Cells
		Prokaryotic and Eukaryotic Cells
		The Function of Organelles
BIO.A.1.2.2	Describe and interpret relationships between structure and function at various levels of biological organization (i.e., organelles, cells, tissues, organs, organ systems, and multicellular organisms).	
		Body Organization
BIO.A.2	The Chemical Basis for Life	
BIO.A.2.1	Describe how the unique properties of water support life on Earth.	
BIO.A.2.1.1	Describe the unique properties of water and how these properties support life on Earth (e.g., freezing point, high specific heat, cohesion).	
		The Importance of Water
BIO.A.2.2	Describe and interpret relationships between structure and function at various levels of biochemical organization (i.e., atoms, molecules, and macromolecules).	
BIO.A.2.2.1	Explain how carbon is uniquely suited to form biological macromolecules.	
		The Importance of Carbon
BIO.A.2.2.2	Describe how biological macromolecules form from monomers.	
		Carbohydrates
		Lipids
		Proteins and Nucleic Acids
BIO.A.2.2.3	Compare the structure and function of carbohydrates, lipids, proteins, and nucleic acids in organisms.	
		Carbohydrates
		Lipids
		Proteins and Nucleic Acids

Standard ID	Standard Text	Edgenuity Lesson Name
BIO.A.2.3	Explain how enzymes regulate biochemical reactions within a cell.	
BIO.A.2.3.1	Describe the role of an enzyme as a catalyst in regulating a specific biochemical reaction.	Catalysts
BIO.A.2.3.2	Explain how factors such as pH, temperature, and concentration levels can affect enzyme function.	Catalysts
BIO.A.3	Bioenergetics	
BIO.A.3.1	Identify and describe the cell structures involved in processing energy.	
BIO.A.3.1.1	Describe the fundamental roles of plastids (e.g., chloroplasts) and mitochondria in energy transformations.	Cellular Respiration
BIO.A.3.2	Identify and describe how organisms obtain and transform energy for their life processes.	
BIO.A.3.2.1	Compare the basic transformation of energy during photosynthesis and cellular respiration.	Cellular Respiration Light Dependent Reactions in Photosynthesis Light Independent Reactions in Photosynthesis
BIO.A.3.2.2	Describe the role of ATP in biochemical reactions.	ATP
BIO.A.4	Homeostasis and Transport	
BIO.A.4.1	Identify and describe the cell structures involved in transport of materials into, out of, and throughout a cell.	
BIO.A.4.1.1	Describe how the structure of the plasma membrane allows it to function as a regulatory structure and/or protective barrier for a cell.	Animal and Plant Cells Cell Homeostasis The Function of Organelles
BIO.A.4.1.2	Compare the mechanisms that transport materials across the plasma membrane (i.e., passive transport—diffusion, osmosis, facilitated diffusion; and active transport—pumps, endocytosis, exocytosis).	Cell Homeostasis Lab: Diffusion Across a Semi-permeable Membrane
BIO.A.4.1.3	Describe how membrane-bound cellular organelles (e.g., endoplasmic reticulum, Golgi apparatus) facilitate the transport of materials within a cell.	The Function of Organelles

Standard ID	Standard Text	Edgenuity Lesson Name
BIO.A.4.2	Explain mechanisms that permit organisms to maintain biological balance between their internal and external environments.	
BIO.A.4.2.1	Explain how organisms maintain homeostasis (e.g., thermoregulation, water regulation, oxygen regulation).	Body Organization Cell Homeostasis Plant Structures
BIO.B.	Continuity and Unity of Life	
BIO.B.1	Cell Growth and Reproduction	
BIO.B.1.1	Describe the three stages of the cell cycle: interphase, nuclear division, cytokinesis.	
BIO.B.1.1.1	Describe the events that occur during the cell cycle: interphase, nuclear division (i.e., mitosis or meiosis), cytokinesis.	Cell Cycle
BIO.B.1.1.2	Compare the processes and outcomes of mitotic and meiotic nuclear divisions.	Meiosis Mitosis
BIO.B.1.2	Explain how genetic information is inherited.	
BIO.B.1.2.1	Describe how the process of DNA replication results in the transmission and/or conservation of genetic information.	Genetic Code
BIO.B.1.2.2	Explain the functional relationships between DNA, genes, alleles, and chromosomes and their roles in inheritance.	Genetic Code Introduction to Genetics
BIO.B.2	Genetics	
BIO.B.2.1	Compare Mendelian and non-Mendelian patterns of inheritance.	
BIO.B.2.1.1	Describe and/or predict observed patterns of inheritance (i.e., dominant, recessive, co-dominance, incomplete dominance, sex-linked, polygenic, and multiple alleles).	Non-Mendelian Inheritance Probability of Inheritance Sex-linked Inheritance
BIO.B.2.1.2	Describe processes that can alter composition or number of chromosomes (i.e., crossing-over, nondisjunction, duplication, translocation, deletion, insertion, and inversion).	Chromosomal Changes DNA Mutations Meiosis

Standard ID	Standard Text	Edgenuity Lesson Name
BIO.B.2.2	Explain the process of protein synthesis (i.e., transcription, translation, and protein modification).	
BIO.B.2.2.1	Describe how the processes of transcription and translation are similar in all organisms.	Protein Synthesis
BIO.B.2.2.2	Describe the role of ribosomes, endoplasmic reticulum, Golgi apparatus, and the nucleus in the production of specific types of proteins.	Lab: Building Proteins from RNA Protein Synthesis
BIO.B.2.3	Explain how genetic information is expressed.	
BIO.B.2.3.1	Describe how genetic mutations alter the DNA sequence and may or may not affect phenotype (e.g., silent, nonsense, frame-shift).	DNA Mutations
BIO.B.2.4	Apply scientific thinking, processes, tools, and technologies in the study of genetics.	
BIO.B.2.4.1	Explain how genetic engineering has impacted the fields of medicine, forensics, and agriculture (e.g., selective breeding, gene splicing, cloning, genetically modified organisms, gene therapy).	Applications of DNA Technology Applied Genetics
BIO.B.3	Theory of Evolution	
BIO.B.3.1	Explain the mechanisms of evolution.	
BIO.B.3.1.1	Explain how natural selection can impact allele frequencies of a population.	Darwin's Theory Factors Affecting Genetic Variation Hardy-Weinberg Principle
BIO.B.3.1.2	Describe the factors that can contribute to the development of new species (e.g., isolating mechanisms, genetic drift, founder effect, migration).	Biogeographic Isolation Factors Affecting Biological Diversity Factors Affecting Genetic Variation
BIO.B.3.1.3	Explain how genetic mutations may result in genotypic and phenotypic variations within a population.	DNA Mutations
BIO.B.3.2	Analyze the sources of evidence for biological evolution.	
BIO.B.3.2.1	Interpret evidence supporting the theory of evolution (i.e., fossil, anatomical, physiological, embryological, biochemical, and universal genetic code).	Biological Evidence and the Fossil Record Evolutionary Relationships

Standard ID	Standard Text	Edgenuity Lesson Name
BIO.B.3.3	Apply scientific thinking, processes, tools, and technologies in the study of the theory of evolution.	
BIO.B.3.3.1	Distinguish between the scientific terms: hypothesis, inference, law, theory, principle, fact, and observation.	Hypotheses, Theories, and Laws Populations and the Environment Scientific Inquiry
BIO.B.4	Ecology	
BIO.B.4.1	Describe ecological levels of organization in the biosphere.	
BIO.B.4.1.1	Describe the levels of ecological organization (i.e., organism, population, community, ecosystem, biome, and biosphere).	Organizational Hierarchy
BIO.B.4.1.2	Describe characteristic biotic and abiotic components of aquatic and terrestrial ecosystems.	Populations and the Environment The Cycles of Matter
BIO.B.4.2	Describe interactions and relationships in an ecosystem.	
BIO.B.4.2.1	Describe how energy flows through an ecosystem (e.g., food chains, food webs, energy pyramids).	Energy Flow in Ecosystems
BIO.B.4.2.2	Describe biotic interactions in an ecosystem (e.g., competition, predation, symbiosis).	Relationships Among Organisms
BIO.B.4.2.3	Describe how matter recycles through an ecosystem (i.e., water cycle, carbon cycle, oxygen cycle, and nitrogen cycle).	The Cycles of Matter
BIO.B.4.2.4	Describe how ecosystems change in response to natural and human disturbances (e.g., climate changes, introduction of nonnative species, pollution, fires).	Human Impact on the Environment Succession and Extinction
BIO.B.4.2.5	Describe the effects of limiting factors on population dynamics and potential species extinction.	Population Growth Population Size and Structure
CC.3.	Core Standards for Reading and Writing in Science and Technology, Grades 9-10	
CC.3.5.9-10.	Reading Informational Text: Students read, understand, and respond to informational text with emphasis on comprehension, making connections among ideas and between texts with focus on textual evidence. Key Ideas and Details	
CC.3.5.9-10.A.	Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	Cell Homeostasis Meiosis

Standard ID	Standard Text	Edgenuity Lesson Name
CC.3.5.9-10.B.	Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	Biogeographic Isolation
CC.3.5.9-10.C.	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	Lab: Natural Selection
	Craft and Structure	
CC.3.5.9-10.D.	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.	The Function of Organelles
CC.3.5.9-10.E.	Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., *force* , *friction* , *reaction force* , *energy*).	The Function of Organelles
CC.3.5.9-10.F.	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.	Factors Affecting Biological Diversity
	Integration of Knowledge and Ideas	
CC.3.5.9-10.G.	Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	Probability of Inheritance
CC.3.5.9-10.H.	Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.	Analyzing Evidence
CC.3.5.9-10.I.	Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	Darwin's Theory Lab: Natural Selection
	Range and Level of Complex Texts	
CC.3.5.9-10.J.	By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.	Biogeographic Isolation

Standard ID	Standard Text	Edgenuity Lesson Name
CC.3.6.9-10.	Writing: Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.	
	Text Types and Purposes	
CC.3.6.9-10.A.	Write arguments focused on discipline-specific content.	
CC.3.6.9-10.A.1.	Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.	
		Biological Evidence and the Fossil Record
CC.3.6.9-10.A.2.	Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.	
		Biological Evidence and the Fossil Record
CC.3.6.9-10.A.3.	Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.	
		Biological Evidence and the Fossil Record
CC.3.6.9-10.A.4.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	
		Biological Evidence and the Fossil Record
CC.3.6.9-10.A.5.	Provide a concluding statement or section that follows from or supports the argument presented.	
		Biological Evidence and the Fossil Record
CC.3.6.9-10.B.	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	
CC.3.6.9-10.B.1.	Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	
		Factors Affecting Biological Diversity
CC.3.6.9-10.B.2.	Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.	
		Factors Affecting Biological Diversity
CC.3.6.9-10.B.3.	Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.	
		Factors Affecting Biological Diversity
CC.3.6.9-10.B.4.	Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.	
		Factors Affecting Biological Diversity

Standard ID	Standard Text	Edgenuity Lesson Name
CC.3.6.9-10.B.5.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	
		Factors Affecting Biological Diversity
CC.3.6.9-10.B.6.	Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	
		Factors Affecting Biological Diversity
	Production and Distribution of Writing	
CC.3.6.9-10.C.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	
		Lab: Mouse Genetics (One Trait)
CC.3.6.9-10.D.	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	
		Biological Evidence and the Fossil Record
CC.3.6.9-10.E.	Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.	
		Lab: Mouse Genetics (Two Traits)
	Research to Build and Present Knowledge	
CC.3.6.9-10.F.	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	
		Lab: Natural Selection
CC.3.6.9-10.G.	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	
		Carbohydrates
CC.3.6.9-10.H.	Draw evidence from informational texts to support analysis, reflection, and research.	
		Carbohydrates
	Range of Writing	
CC.3.6.9-10.I.	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	
		Applications of DNA Technology

Unit	Lesson	Lesson Objectives
The Scientific Process		
	Scientific Inquiry	
		Apply the scientific process to given scenarios.
		Science Practice: Describe how the scientific inquiry process uses the scientific method.
	Hypotheses, Theories, and Laws	
		Examine the relationship between observations, hypotheses, theories, and laws.
		Explain how hypotheses are formed and tested.
		Explain how theories may change as new areas of science and technology develop.
		Science Practice: Give examples of how hypotheses lead to new experimental methods.
	Experimental Design Principles	
		Distinguish between accuracy and precision.
		Evaluate data to determine accuracy and reproducibility.
		Explain the difference between replication and repetition.
		Write measurements in standard form and in scientific notation.
	Collecting and Organizing Data	
		Construct charts, graphs, and tables to organize data in a systematic way.
		Gather data through qualitative and quantitative observations.
		Identify tools and technology that should be used to gather accurate measurements.
		Science Practice: Distinguish between and give examples of observation and inference.
	Analyzing Data and Drawing Conclusions	
		Analyze data to determine validity.
		Create charts and graphs to analyze trends in data.
		Formulate a conclusion based on observations, data, and inferences.
		Science Practice: Describe various ways evidence can be interpreted or explained.
	Analyzing Evidence	
		Identify possible reasons for inconsistencies in scientific evidence.
		Predict trends by analyzing and evaluating data.
		Use evidence to critique scientific arguments.
		Science Practice: Analyze how new technologies and experiments affect previous scientific explanations.
The Chemistry of Life		
	Characteristics of Life	
		Compare and contrast living and nonliving objects.
		Describe the characteristics of living organisms.
		List the levels of organization within a living organism in hierarchical order.
		Science Practice: Examine how two different scientists could use different experimental designs and have the same outcome.

Unit	Lesson	Lesson Objectives
	The Importance of Water	
		Describe the steps of the water cycle.
		Identify the unique chemical and physical properties of water.
		Interpret the importance of water to living organisms.
		Science Practice: Predict trends and outcomes based on a given set of data.
	The Importance of Carbon	
		Describe the steps of the carbon cycle.
		Explain the essential role of carbon within living organisms.
		Interpret the importance of the carbon cycle to living organisms.
		Science Practice: Evaluate data to formulate a conclusion.
	Carbohydrates	
		Compare the structures of monosaccharides, disaccharides, and polysaccharides.
		Differentiate between the roles of monosaccharides, disaccharides, and polysaccharides in living organisms.
		Identify the role of carbohydrates in living organisms.
		Science Practice: Construct charts, graphs, and tables to organize data.
	Lipids	
		Compare and contrast the structures of saturated and unsaturated lipids.
		Explain the roles of lipids within living organisms.
		Science Practice: Evaluate data to formulate a conclusion.
	Proteins and Nucleic Acids	
		Explain the roles of proteins and nucleic acids in living organisms.
		Identify the components of proteins and nucleic acids and discuss how they were discovered.
		Recognize essential amino acids found in living organisms.
		Science Practice: Evaluate the impact of science and technology on society.
	Catalysts	
		Describe the “lock and key” mechanism of enzymes in chemical reactions.
		Explain how catalysts affect the energy of a chemical reaction.
		Relate changes in energy to the rate of a chemical reaction.
		Science Practice: Create a laboratory experiment to answer a specific question.
Cell Structure and Function		
	Cell Theory	
		Compare and contrast the functions of different types of microscopes.
		Describe the components of cell theory.
		Examine the role of microscopes in discovering cells.
		Science Practice: Analyze how new technologies and experiments affect previous scientific explanations.

Unit	Lesson	Lesson Objectives
	Prokaryotic and Eukaryotic Cells	
		Compare and contrast prokaryotic and eukaryotic cells.
		Describe the basic structure of a cell.
		Explain the endosymbiotic theory.
		Science Practice: Evaluate past research from investigations similar in design and purpose.
	The Function of Organelles	
		Describe the functions of each organelle.
		Identify the organelles of a cell.
		Science Practice: Construct charts, graphs, and tables to organize data.
	Cell Homeostasis	
		Describe the importance of homeostasis to living organisms.
		Differentiate between diffusion, osmosis, passive transport, and active transport.
		Explain how cells maintain homeostasis.
		Science Practice: Generate procedures to utilize charts, graphs, and tables to show data.
	Lab: Diffusion Across a Semi-permeable Membrane	
		Describe the process of diffusion.
		Identify materials that are able to pass across a semipermeable membrane by diffusion.
		Science Practice: Apply the scientific method to given scenarios.
	Animal and Plant Cells	
		Compare and contrast the structures of animal and plant cells.
		Differentiate between the cell membrane and the cell wall.
		Science Practice: Construct charts, graphs, and tables to organize data.
Cellular Energy and Reproduction		
	ATP	
		Describe the role of ATP in living organisms other than plants.
		Describe the role of ATP in plant processes.
		Identify ATP as a source of energy for living organisms.
		Science Practice: Evaluate data to formulate a conclusion.
	Light Dependent Reactions in Photosynthesis	
		Outline the steps of the light-dependent reactions in photosynthesis.
		Science Practice: Distinguish between and give examples of observation and inference.
	Light Independent Reactions in Photosynthesis	
		Compare and contrast the light-dependent and the light-independent reactions of photosynthesis.
		Outline the steps of the light-independent reactions in photosynthesis.
		Science Practice: Apply the scientific method to given scenarios.

Unit	Lesson	Lesson Objectives
	Cellular Respiration	
		Compare and contrast aerobic and anaerobic cellular respiration.
		Describe how cellular respiration converts glucose to energy in the form of ATP.
		Explain the importance of cellular respiration to living organisms.
		Science Practice: Organize data using specific grouping methods.
	Cell Cycle	
		Describe the importance of the cell cycle to living organisms.
		Describe the stages of the cell cycle in eukaryotic organisms.
		Explain the effect of disrupting the cell cycle on living organisms.
		Science Practice: Evaluate data to formulate a conclusion.
	Mitosis	
		Describe the steps of mitosis.
		Explain the importance of mitosis to living organisms.
		Science Practice: Analyze how new technologies and experiments affect previous scientific explanations.
	Meiosis	
		Describe the roles of crossing over and independent assortment in meiosis.
		Explain the importance of meiosis to living organisms.
		Illustrate the steps of meiosis.
		Science Practice: Examine how a scientist`s creativity can lead to scientific discovery.
	Asexual and Sexual Reproduction	
		Compare and contrast sexual and asexual reproduction.
		Differentiate between mitosis and meiosis.
		Relate the processes of mitosis and meiosis to reproduction.
		Science Practice: Outline how to formulate scientific questions using reproduction as a model.
	Cell Differentiation and Specialization	
		Analyze the effect of changing external conditions on specialized cells.
		Describe specialized cells found within living organisms.
		Explain the role of differentiation in the creation of specialized cells.
		Science Practice: Examine how two different scientists could use different experimental designs and have the same outcome.
DNA and Protein Synthesis		
	Genetic Code	
		Describe the relationship between DNA, genes, and chromosomes.
		Describe the role of DNA replication in transmitting genetic information.
		Summarize the experiments that led to the discovery of the genetic code.
		Science Practice: Evaluate the impact of science and technology on society.

Unit	Lesson	Lesson Objectives
	Chromosomes	
		Create and label a diagram of homologous chromosome pairs with heterozygous alleles.
		Explain how a karyotype can be used to identify genetic defects.
		Illustrate the structure of a chromosome and its relationship to DNA.
		Science Practice: Apply the components of a scientific report.
	DNA and RNA Structure	
		Analyze the similarities and differences between DNA and RNA.
		Explain how the base pairing in DNA and RNA was discovered.
		Science Practice: Give examples of how research affects science, society, and the environment.
	Protein Synthesis	
		Describe the role of transcription in protein synthesis.
		Describe the role of translation in protein synthesis.
		Explain the functions of proteins within organisms.
	Lab: Building Proteins from RNA	
		Demonstrate how base pairing builds proteins from RNA.
		Describe the role of RNA in the creation of proteins.
		Science Practice: Conduct a laboratory experiment to answer a specific question.
	DNA Mutations	
		Analyze the effect of harmful environmental factors on DNA.
		Describe common types of DNA mutations.
		Explain the effects of DNA mutations on the characteristics of living organisms.
		Science Practice: Discriminate scientific claims that are socially accepted but not scientifically based.
	Chromosomal Changes	
		Analyze the effect of harmful environmental factors on chromosomes.
		Describe common types of chromosomal mutations.
		Explain the effects of chromosomal changes on the characteristics of living organisms.
		Science Practice: Distinguish between science and pseudo-science.
Genetics and Heredity		
	Introduction to Genetics	
		Describe the role of nucleic acids in transmitting genetic information.
		Explain the importance of Gregor Mendel to the field of genetics.
		Science Practice: Give examples of how hypotheses lead to new experimental methods.

Unit	Lesson	Lesson Objectives
	Laws of Inheritance	
		Apply the law of independent assortment.
		Describe how the principle of dominance applies to genes.
		Summarize the law of segregation.
		Science Practice: Differentiate scientific hypotheses, theories, and laws.
	Probability of Inheritance	
		Determine genotype and phenotype probabilities from Punnett squares.
		Predict possible allele combinations of offspring based on the genetics of the parent.
		Use Punnett squares to create monohybrid and dihybrid crosses.
		Science Practice: Explain how changing the variables, methods, and timing impacts scientific investigation.
	Lab: Mouse Genetics (One Trait)	
		Demonstrate how dominant and recessive alleles are passed from parents to offspring.
		Use the laws of inheritance to breed mice with desired genotypes for fur color.
		Science Practice: Evaluate data to formulate a conclusion.
	Non-Mendelian Inheritance	
		Analyze examples of polygenic traits.
		Differentiate between incomplete dominance and codominance.
		Explain how blood type is determined.
		Science Practice: Assess how science and society impact each other.
	Sex-linked Inheritance	
		Analyze a pedigree to determine sex-linked traits.
		Summarize the process of sex-linked inheritance.
		Science Practice: Give examples of how research affects science, society, and the environment.
	Lab: Mouse Genetics (Two Traits)	
		Demonstrate how alleles are passed independently of one another.
		Use the laws of inheritance to describe how two separate traits are inherited in an organism.
		Science Practice: Evaluate data to formulate a conclusion.
	Applied Genetics	
		Analyze a pedigree to identify desired traits for breeding.
		Describe the process for selective breeding.
		Science Practice: Evaluate the impact of science and technology on society.
	Applications of DNA Technology	
		Analyze applications of DNA technology in the field of agriculture.
		Describe uses of DNA technology in the field of forensics.
		Explain how DNA technology is utilized in the field of medicine.
		Science Practice: Examine careers in science fields.

Unit	Lesson	Lesson Objectives
	Consequences of DNA Technology	
		Analyze consequences of utilizing DNA technology in fields such as forensics, medicine, and agriculture.
		Summarize the advantages and disadvantages of utilizing DNA technology.
		Science Practice: Compare the economic, human, and environmental losses to the benefit of a specific scientific example.
Natural Selection and Evolution		
	The History of Evolutionary Theory	
		Explain the importance of the theory of evolution to biology.
		Summarize the historical development of the theory of evolution.
		Science Practice: Judge claims made by scientific explanations, data, or evidence.
	Darwin's Theory	
		Explain how natural selection acts as a mechanism of evolution.
		Summarize the main points of Darwin's theory.
		Summarize the major concepts of natural selection.
		Science Practice: Describe how scientific investigations lead to new scientific questions.
	Lab: Natural Selection	
		Identify natural selection as a mechanism for the evolution of a population.
		Science Practice: Decide whether specific questions can be answered using scientific investigation.
	Factors Affecting Genetic Variation	
		Describe genetic drift and gene flow as mechanisms of evolution.
		Give examples of how environmental factors affect genetic variation and influence natural selection.
		Science Practice: Predict trends and outcomes based on a given set of data.
	Hardy-Weinberg Principle	
		Identify the conditions that are necessary for a population to be in Hardy-Weinberg equilibrium.
		Use the Hardy-Weinberg equation to predict the frequency of genotypes in a population given the frequency of phenotypes.
		Science Practice: Describe how scientific investigations lead to new scientific questions.
	Factors Affecting Biological Diversity	
		Examine how directional, disruptive, and stabilizing selection affect biological diversity.
		Explain how new or varied species originate via natural selection.
		Science Practice: Judge claims made by scientific explanations, data, or arguments.
	Biogeographic Isolation	
		Analyze how new species are formed by reproductive and geographic isolation.
		Analyze the relationship between biogeographic isolation and the theory of evolution.
		Explain the concept of biogeographic isolation.
		Science Practice: Give examples of how hypotheses lead to new experimental methods.

Unit	Lesson	Lesson Objectives
	Biological Evidence and the Fossil Record	
		Assess the comparative anatomies among organisms.
		Describe how the fossil record shows common ancestry between organisms.
		Distinguish scientific evidence that supports the theory of evolution.
		Science Practice: Explain the role of scientific argumentation in evaluating the validity of data, claims, hypotheses, and observations.
	Evolutionary Relationships	
		Analyze the relationships among organisms based on a variety of shared characteristics.
		Explain how understanding evolutionary history impacts classification of organisms.
		Interpret evolutionary relationships among organisms on a cladogram.
		Science Practice: Describe various ways evidence can be interpreted or explained.
Structure of Organisms		
	The Kingdoms	
		Compare characteristics of taxonomic groups.
		Distinguish the six kingdoms of living organisms.
		Summarize the levels of biological classification.
		Science Practice: Organize data using specific grouping methods.
	Types of Plants	
		Differentiate between gymnosperms and angiosperms.
		Distinguish ways that plants are grouped.
		Summarize the origin and evolution of land plants.
		Science Practice: Organize data using specific grouping methods.
	Plant Structures	
		Describe the interactions among plant systems that allow transport, reproduction, and response.
		Identify the three types of plant tissue.
		Relate the structures of major plant organs and tissues to their functions.
		Science Practice: Give examples of how research affects science, society, and the environment.
	Protists and Fungi	
		Characterize the three common types of protists.
		Distinguish between the five phyla of fungi.
		Relate the structures found in protists and fungi to their functions.
		Science Practice: Show how scientific evidence can affect societal decisions.
	Bacteria	
		Characterize three common forms of bacteria.
		Compare modes of bacterial reproduction.
		Explain how bacteria infects other organisms.
		Science Practice: Examine the contributions of scientists from various scientific disciplines.

Unit	Lesson	Lesson Objectives
	Viruses	
		Compare the structure of a virus to a cell.
		Describe how the structure of a virus contributes to its ability to cause infection.
		Differentiate between the lytic and lysogenic cycles of viral reproduction.
		Science Practice: Use scientific evidence to support an argument.
	Body Organization	
		Analyze how organ systems function together to maintain homeostasis.
		Identify the levels of organization in the body.
Organisms and the Environment		
	Organizational Hierarchy	
		Describe how organisms, populations, communities, ecosystems, and biomes are related.
		Describe the hierarchy of organisms, populations, communities, ecosystems, and biomes.
		Science Practice: Examine the economic, societal, and environmental impacts of a real-world example.
	The Cycles of Matter	
		Describe the importance of the water, carbon, and nitrogen cycles.
		Explain how water, carbon, and nitrogen cycle through an ecosystem.
		Identify the four spheres of Earth.
	Populations and the Environment	
		Compare and contrast positive and negative interactions between organisms and their environment.
		Demonstrate how an organism's habitat determines its niche.
		Determine biotic and abiotic factors within an ecosystem.
		Science Practice: Distinguish between and give examples of observation and inference.
	Relationships Among Organisms	
		Describe the five major types of interactions between organisms.
		Examine how symbiotic relationships can create dependency among species.
		Explain how invasive species affect the environment they occupy.
		Science Practice: Describe various ways evidence can be interpreted or explained.
	Energy Flow in Ecosystems	
		Analyze energy pyramids and biomass pyramids.
		Distinguish between producers, consumers, and decomposers.
		Explain the flow of energy through an ecosystem using food chains and food webs.
	Population Size and Structure	
		Describe the limiting factors that affect a population in a given environment.
		Differentiate between density-dependent and density-independent factors.
		Explain how birth rate, death rate, immigration, and emigration affect population size.
		Science Practice: Evaluate the impact of science and technology on society.

Unit	Lesson	Lesson Objectives
	Population Growth	
		Compare and contrast exponential and logistic growth models.
		Determine factors that influence a species' carrying capacity.
		Identify factors that affect population growth.
		Science Practice: Predict trends and outcomes based on a given set of data.
	Succession and Extinction	
		Assess the importance of biodiversity in an ecosystem.
		Identify and explain the stages of succession in an ecosystem.
		Identify factors that may disturb ecosystem stability.
		Science Practice: Locate data on a table and relate that data to a corresponding graph.
	Human Impact on the Environment	
		Analyze how human populations affect resources.
		Give examples of human activities that have been beneficial and detrimental to the environment.
		Relate the greenhouse effect to global warming and explain its impact on the environment.
		Science Practice: Give examples of science contributions impacting sustainability.

Biology

Couse Overview and Syllabus

Course Number: SC3209

Grade level: 9–12

Prerequisite Courses: None

Credits: 1.0

Course Description

This compelling two-semester course engages students in the study of life and living organisms and examines biology and biochemistry in the real world. This is a year-long course that encompasses traditional concepts in biology and encourages exploration of new discoveries in this field of science. The components include biochemistry, cell biology, cell processes, heredity and reproduction, the evolution of life, taxonomy, human body systems, and ecology.

Course Objectives

Throughout the course, you will meet the following goals:

- Understand the relationships among living organisms
- Describe the functions and processes that control cellular activities
- Trace the discoveries and scientific thought that increase the application of new technology in the field of DNA and genetics
- Examine the taxonomy that organizes all organisms
- Recognize the structures and functions of systems of the human body
- Relate the interdependence of ecosystems and propose solutions to issues impacting the environment

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Assignments	10%
Labs	20%
Lesson Quizzes	20%
Unit Tests	30%
Cumulative Exams	20%
Additional	0%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Scientific Knowledge and Inquiry
Unit 2: The Chemistry of Life
Unit 3: Cell Structure and Function
Unit 4: Cellular Energy and Reproduction
Unit 5: DNA and Protein Synthesis
Unit 6: Genetics and Heredity
Unit 7: Natural Selection and Evolution
Unit 8: Structure of Organisms
Unit 9: Organisms and the Environment

Standard ID	Standard Text	Edgenuity Lesson Name
3.3.	Earth and Space Sciences	
3.3.A.	Earth Structure, Processes and Cycles	
3.3.10.A1a.	Relate plate tectonics to both slow and rapid changes in the earth's surface.	Continental Drift Plate Tectonics Characteristics of the Seafloor Forces in Earth's Crust Lab: Plate Boundaries and Movement Earthquakes Volcanoes
3.3.10.A1b.	Describe the rock cycle and the processes that are responsible for the formation of igneous, sedimentary, and metamorphic rocks.	Rocks and the Rock Cycle Igneous Rocks Sedimentary Rocks Metamorphic Rocks
3.3.10.A1c.	Relate geochemical cycles to the conservation of matter.	Cycles of Matter Rocks and the Rock Cycle
3.3.10.A1d.	Explain how the Earth is composed of a number of dynamic, interacting systems exchanging energy or matter.	Spheres of Earth Cycles of Matter
3.3.10.A2.	Analyze the effects on the environment and the carbon cycle of using both renewable and nonrenewable sources of energy.	Cycles of Matter Energy on Earth Land Resources Air Resources Water Resources
3.3.10.A3.	Explain how the evolution of Earth has been driven by interactions between the lithosphere, hydrosphere, atmosphere, and biosphere. *(Cont'd.)*	Fossils Relative Dating Absolute Dating Lab: Relative and Absolute Dating Geologic Time Spheres of Earth Populations and the Environment Continental Drift Plate Tectonics

Standard ID	Standard Text	Edgenuity Lesson Name
3.3.10.A3.	Explain how the evolution of Earth has been driven by interactions between the lithosphere, hydrosphere, atmosphere, and biosphere.	
	(Cont'd.)	Weathering and Soil Erosion and Deposition Water and Wind Erosion Lab: Modeling Water Erosion Environmental Changes Earth's Climate History Climate Change
3.3.10.A4a.	Relate geochemical cycles to conservation of matter.	Cycles of Matter
3.3.10.A4b.	Explain how the Earth's systems and its various cycles are driven by energy.	Spheres of Earth Cycles of Matter Earth's Interior Continental Drift Plate Tectonics Weathering and Soil Erosion and Deposition Surface Water Groundwater Ocean Circulation Structure and Composition of the Atmosphere Energy in the Atmosphere Lab: Energy Transfer Winds
3.3.10.A5a.	Explain how there is only one ocean.	Ocean Water Ocean Circulation
3.3.10.A5b.	Explain the processes of the hydrologic cycle.	Cycles of Matter
3.3.10.A5c.	Explain the dynamics of oceanic currents and their relationship to global circulation within the marine environment.	Ocean Circulation
3.3.10.A6a.	Interpret meteorological data to describe and/or predict weather.	Weather Forecasting Lab: Weather Patterns

Standard ID	Standard Text	Edgenuity Lesson Name
3.3.10.A6b.	Explain the phenomena that cause global atmospheric processes such as storms, currents, and wind patterns.	Structure and Composition of the Atmosphere Energy in the Atmosphere Lab: Energy Transfer Winds Atmospheric Moisture and Precipitation Air Masses and Fronts Storms
3.3.10.A7a.	(SCALE/MODELS) Interpret and create models of the Earth's physical features in various mapping representations.	Landforms Models of Earth Topographic Maps
3.3.10.A7b.	(CONSTANCY AND CHANGE) Relate constancy and change to the hydrologic and geochemical cycles.	Cycles of Matter
3.3.10.A7c.	(SCALE) Apply an appropriate scale to illustrate major events throughout geologic time.	Relative Dating Absolute Dating Lab: Relative and Absolute Dating Geologic Time
3.3.10.A7d.	(CONSTANCY/CHANGE) Describe factors that contribute to global climate change.	Factors That Affect Climate Lab: Absorption and Radiation by Land and Water Earth's Climate History Climate Change
3.3.B.	Origin and Evolution of the Universe	
3.3.10.B1a.	Explain how gravity is responsible for planetary orbits.	Gravity and Motion The Earth-Sun-Moon System
3.3.10.B1b.	Explain what caused the sun, Earth, and most of the other planets to form between 4 and 5 billion years ago.	The Expanding Universe
3.3.10.B1c.	Provide evidence to suggest the Big Bang Theory.	The Expanding Universe
3.3.10.B1d.	Describe the basic nuclear processes involved in energy production in a star.	Stars

Standard ID	Standard Text	Edgenuity Lesson Name
3.3.10.B2a.	(SCALE AND MEASUREMENT) Explain how scientists obtain information about the universe by using technology to detect electromagnetic radiation that is emitted, reflected, or absorbed by stars and other objects.	The Expanding Universe Stars
3.3.10.B2b.	(CONSTANCY AND CHANGE) Describe changes in the universe over billions of years.	The Expanding Universe
3.3.10.B2c.	(SCALE AND MEASUREMENT) Explain the scale used to measure the sizes of stars and galaxies and the distances between them.	Star Systems and Galaxies Stars The Sun
3.3.	Earth and Space Sciences	
3.3.A.	Earth Structure, Processes and Cycles	
3.3.12.A1a.	Explain how parts are related to other parts in weather systems, solar systems, and earth systems, including how the output from one part can become an input to another part.	Star Systems and Galaxies The Solar System Planets The Earth-Sun-Moon System Cycles of Matter Rocks and the Rock Cycle Winds Atmospheric Moisture and Precipitation Air Masses and Fronts Storms
3.3.12.A1b.	Analyze the processes that cause the movement of material in the Earth's systems.	Spheres of Earth Cycles of Matter Earth's Interior Plate Tectonics Forces in Earth's Crust Rocks and the Rock Cycle
3.3.12.A1c.	Classify Earth's internal and external sources of energy such as radioactive decay, gravity, and solar energy.	Gravity and Motion Earth's Interior Forces in Earth's Crust Energy in the Atmosphere Lab: Energy Transfer

Standard ID	Standard Text	Edgenuity Lesson Name
3.3.12.A2a.	Analyze the availability, location, and extraction of Earth's resources.	Energy on Earth Land Resources Air Resources Water Resources Human Impact on Resources Lab: Effects of Human Activity on Freshwater Resources
3.3.12.A2b.	Evaluate the impact of using renewable and nonrenewable energy resources on the Earth's system.	Energy on Earth Land Resources Air Resources Water Resources Human Impact on Resources
3.3.12.A3.	Describe the absolute and relative dating methods used to measure geologic time, such as index fossils, radioactive dating, law of superposition, and crosscutting relationships.	Fossils Relative Dating Absolute Dating Lab: Relative and Absolute Dating
3.3.12.A4a.	Classify Earth's internal and external sources of energy such as radioactive decay, gravity, and solar energy.	Gravity and Motion Earth's Interior Forces in Earth's Crust Energy in the Atmosphere Lab: Energy Transfer
3.3.12.A4b.	Relate the transfer of energy through radiation, conduction, and convection to global atmospheric processes.	Energy in the Atmosphere Lab: Energy Transfer Winds Atmospheric Moisture and Precipitation
3.3.12.A5.	Explain how the ocean dominates the Earth's carbon cycle.	Cycles of Matter Ocean Water Ocean Circulation Factors That Affect Climate

Standard ID	Standard Text	Edgenuity Lesson Name
3.3.12.A6a.	Explain how the unequal heating of the Earth's surface leads to atmospheric global circulation changes, climate, local short term changes, and weather.	Energy in the Atmosphere Lab: Energy Transfer Winds Atmospheric Moisture and Precipitation Air Masses and Fronts Storms Factors That Affect Climate Lab: Absorption and Radiation by Land and Water Climate Change
3.3.12.A6b.	Relate the transfer of energy through radiation, conduction, and convection to global atmospheric processes.	Energy in the Atmosphere Lab: Energy Transfer Winds Atmospheric Moisture and Precipitation
3.3.12.A7a.	(MODELS) Interpret and analyze a combination of ground-based observations, satellite data, and computer models to demonstrate Earth systems and their interconnections.	Spheres of Earth
3.3.12.A7b.	(CONSTANCY/CHANGE) Infer how human activities may impact the natural course of Earth's cycles.	Environmental Changes Land Resources Air Resources Water Resources Human Impact on Resources Lab: Effects of Human Activity on Freshwater Resources
3.3.12.A7c.	(PATTERNS) Summarize the use of data in understanding seismic events, meteorology, and geologic time.	Plate Tectonics Weather Forecasting Lab: Weather Patterns Fossils Relative Dating Absolute Dating

Standard ID	Standard Text	Edgenuity Lesson Name
3.3.B.	Origin and Evolution of the Universe	
3.3.12.B1a.	Describe the life cycle of stars based on their mass.	Stars
3.3.12.B1b.	Analyze the influence of gravity on the formation and life cycles of galaxies, including our own Milky Way galaxy; stars; planetary systems; and residual material left from the creation of the solar system.	The Expanding Universe Star Systems and Galaxies Stars The Solar System Gravity and Motion Other Objects in the Solar System
3.3.12.B1c.	Relate the nuclear processes involved in energy production in stars and supernovas to their life cycles.	Stars
3.3.12.B2a.	(MODELS AND SCALE) Apply mathematical models and computer simulations to study evidence collected relating to the extent and composition of the universe.	The Expanding Universe
3.3.12.B2b.	(PATTERNS AND CONSTANCY AND CHANGE) Analyze the evidence supporting theories of the origin of the universe to predict its future.	The Expanding Universe

Unit	Lesson	Lesson Objectives
Structure of the Universe		
	The Expanding Universe	
		Describe the big bang theory.
		Describe what astronomers predict about the future of the universe.
		Explain how the solar system formed.
	Star Systems and Galaxies	
		Describe star systems.
		Distinguish the major types of galaxies.
	Stars	
		Explain how a star forms.
		Explain how stars are classified.
		Explain what happens as a star runs out of fuel.
		Identify the physical properties of stars.
	The Sun	
		Describe the structure, composition, and physical properties of the Sun.
		Discuss the different types of solar activity and explain how each activity affects Earth.
		Explain how the Sun generates energy.
		Science Practice: Describe units used by astronomers to measure the distance between the Sun and Earth.
	The Solar System	
		Compare the geocentric and heliocentric models of the solar system.
		Explain how Copernicus, Galileo, and Kepler contributed to the acceptance of the heliocentric model.
		Identify objects that make up the solar system.
	Planets	
		Identify characteristics shared by the inner planets.
		Identify characteristics shared by the outer planets.
		Identify each planet in the solar system.
	Gravity and Motion	
		Explain how Earth and the moon stay in orbit.
		Identify factors that influence the force of gravity between objects.
	The Earth-Sun-Moon System	
		Describe solar and lunar eclipses.
		Explain how Earth moves in space.
		Explain what causes the phases of the moon.
		Explain what causes tides.

Unit	Lesson	Lesson Objectives
	Other Objects in the Solar System	
		Describe the characteristics of dwarf planets.
		Distinguish between comets, asteroids, and meteoroids.
		Explain the difference between meteoroids, meteors, and meteorites.
		Science Practice: Examine how life may be affected when cosmic objects impact Earth.
Earth's History		
	Fossils	
		Differentiate types of fossils.
		Explain how fossils form.
		Explain how fossils show Earth's changes over time.
	Relative Dating	
		Describe the law of superposition.
		Explain how fossils are used to date rocks.
		Explain how geologists determine the relative age of rocks.
	Absolute Dating	
		Explain how geologists determine the absolute age of rocks.
		Explain what happens during radioactive decay.
	Lab: Relative and Absolute Dating	
		Apply the principles of rock dating to construct a geologic history of a region.
		Model radioactive decay.
	Geologic Time	
		Distinguish the units of the geologic time scale.
		Explain how Earth has evolved over geologic time.
		Explain why the geologic time scale is used to show Earth's history.
	Spheres of Earth	
		Distinguish the four major parts of the Earth system.
		Explain how Earth's four spheres interact.
	Populations and the Environment	
		Differentiate biotic and abiotic factors.
		Identify the levels of organization within an ecosystem.
		Identify ways in which organisms compete for resources.
	Cycles of Matter	
		Analyze the importance of the nitrogen cycle.
		Examine how carbon cycles through an ecosystem.
		Identify the processes involved in the water cycle.

Unit	Lesson	Lesson Objectives
Earth's Structure and Plate Tectonics		
	Earth's Interior	
		Compare and contrast the three main layers of Earth.
		Explain how geologists learn about Earth's interior.
	Continental Drift	
		Describe evidence that supports continental drift.
		Explain continental drift.
	Plate Tectonics	
		Distinguish the three types of plate boundaries.
		Explain the theory of plate tectonics.
		Identify the major tectonic plates.
		Relate plate tectonics to the formation of landforms.
	Characteristics of the Seafloor	
		Describe evidence that supports seafloor spreading.
		Describe the process of seafloor spreading.
		Explain what occurs at deep-ocean trenches.
	Forces in Earth's Crust	
		Explain how stress in the crust affects Earth's surface.
		Explain why faults form in particular areas.
		Identify land features that result from plate movement.
	Lab: Plate Boundaries and Movement	
		Compare and contrast the plate movements that cause earthquakes and volcanic eruptions.
		Describe the role of mantle convection in plate movement.
		Differentiate between the major types of plate boundaries.
		Examine how plate movements cause changes in Earth's surface.
	Landforms	
		Identify the three main types of landforms.
		Identify what the topography of an area includes.
	Models of Earth	
		Describe the reference lines that are used to locate points on Earth.
		Explain how computers are used to map Earth's surface.
		Explain how maps and globes represent Earth's surface.
		Identify the three major map projections.

Unit	Lesson	Lesson Objectives
	Topographic Maps	
		Describe uses of topographic maps.
		Explain how elevation, relief, and slope are shown on topographic maps.
		Interpret topographic maps.
	Earthquakes	
		Describe methods used to measure earthquakes.
		Describe the causes of an earthquake.
		Explain how geologists locate the epicenter of an earthquake.
		Explain how the energy of an earthquake travels.
	Volcanoes	
		Describe the three stages of volcanic activity.
		Distinguish the two types of volcanic eruption.
		Explain how volcanoes create various landforms.
		Explain what happens when a volcano erupts.
		Identify the reasons why Earth's volcanic regions are located in certain areas.
Weathering, Erosion, and Deposition		
	Weathering and Soil	
		Classify different types of soil.
		Describe the characteristics of soil.
		Distinguish between mechanical and chemical weathering.
		Explain how soil is formed.
		Identify factors that affect the rate of weathering.
	Rocks and the Rock Cycle	
		Describe the properties used to identify rocks.
		Identify the three main groups of rocks.
		Identify the ways in which rocks change as they move through the rock cycle.
	Igneous Rocks	
		Describe the characteristics used to classify igneous rocks.
		Identify the steps of igneous rock formation.
	Sedimentary Rocks	
		Distinguish the three types of sedimentary rocks.
		Identify ways in which sedimentary are formed.
	Metamorphic Rocks	
		Differentiate types of metamorphic rocks.
		Identify the steps of metamorphic rock formation.

Unit	Lesson	Lesson Objectives
	Erosion and Deposition	
		Describe erosion and deposition.
		Differentiate types of mass movement.
	Water and Wind Erosion	
		Describe the effects of wind erosion and deposition.
		Explain how glaciers and waves cause erosion and deposition.
		Identify causes of groundwater erosion.
		Identify features that are formed by water erosion and deposition.
	Lab: Modeling Water Erosion	
		Identify factors that affect erosion and deposition by rivers.
		Model stream processes and observe stream behavior.
	Environmental Changes	
		Identify examples of short-term and long-term environmental changes.
		Identify the impacts of short-term and long-term environmental changes on organisms and ecosystems.
		Predict how environmental changes will affect organisms and ecosystems.
Earth's Hydrosphere and Atmosphere		
	Surface Water	
		Distinguish the three types of wetlands.
		Identify sources of fresh water.
		Identify the characteristics of ponds and lakes.
		Identify the components of a river system.
	Groundwater	
		Differentiate major groundwater zones, including the saturated and unsaturated zones and the water table.
		Explain how groundwater is obtained.
		Explain how water moves underground.
	Ocean Water	
		Describe the composition of ocean water.
		Distinguish the three main sections of the ocean's floor.
		Distinguish the three ocean zones.
		Locate Earth's five oceans.
	Ocean Circulation	
		Describe changes that affect ocean circulation.
		Describe tides as a source of energy.
		Identify causes of waves, currents, and tides.

Unit	Lesson	Lesson Objectives
	Structure and Composition of the Atmosphere	
		Describe the composition of Earth's atmosphere.
		Describe the importance of the atmosphere to living things.
		Distinguish the four main layers of the atmosphere.
		Explain how altitude affects air pressure and density.
		Identify properties of air, including pressure and density.
	Energy in the Atmosphere	
		Distinguish the three ways in which heat is transferred.
		Explain what happens when the Sun's energy reaches Earth.
		Identify the types of energy that travel from the Sun to Earth.
	Lab: Energy Transfer	
		Differentiate between the processes of conduction, convection, and radiation.
		Explain the role of heat transfer processes in the distribution of energy on Earth.
	Winds	
		Differentiate between local and global winds.
		Examine the processes that cause wind.
		Locate the major global wind belts.
	Atmospheric Moisture and Precipitation	
		Describe humidity and how it is measured.
		Distinguish the three main types of clouds.
		Explain how clouds form.
		Identify common types of precipitation.
Weather and Climate		
	Air Masses and Fronts	
		Differentiate the four main types of fronts.
		Explain how air masses move.
		Identify the major types of air masses.
	Storms	
		Describe the effects of various storms on humans and the environment.
		Explain how various storms form.
		Identify measures that can be taken to stay safe in a storm.
	Weather Forecasting	
		Describe basic elements of meteorology.
		Describe what information can be gained from a weather map.

Unit	Lesson	Lesson Objectives
	Lab: Weather Patterns	
		Examine the influence of atmospheric conditions on weather patterns.
		Identify weather systems and fronts utilizing a weather map.
		Utilize weather station data to analyze weather patterns.
	Factors That Affect Climate	
		Explain how various factors affect weather and climate.
		Explain what causes seasons.
	Lab: Absorption and Radiation by Land and Water	
		Compare and contrast the absorption of heat by land and water surfaces.
		Examine how the angle of sunlight affects heat absorption in the different climate regions.
	Earth's Climate History	
		Explain how scientists study ancient climates.
		Identify factors that can cause long-term climate change.
	Climate Change	
		Explain how human, biologic, and geologic activities can influence climate.
		Identify events that can cause short-term and global climate change.
Earth's Natural Resources		
	Energy on Earth	
		Distinguish between renewable and nonrenewable resources.
		Identify advantages and disadvantages of various energy sources.
		Identify renewable and nonrenewable resources.
	Land Resources	
		Describe land as a natural resource.
		Explain how land resources are managed.
	Air Resources	
		Describe the atmosphere as a natural resource.
		Describe the importance of clean air.
	Water Resources	
		Describe the importance of water.
		Explain how Earth's water is distributed and used.
		Explain how water resources are managed.
	Human Impact on Resources	
		Compare the costs and benefits of conservation policies.
		Identify the negative impacts that human activity has had on Earth's resources.
		Identify the positive impacts that human activity has had on Earth's resources.

Unit	Lesson	Lesson Objectives
	Lab: Effects of Human Activity on Freshwater Resources	Identify sources of freshwater pollution. Model the effect of pollutants on the quality of freshwater resources. Predict the effect of human activity on the health of a freshwater ecosystem.

Standard ID	Standard Text	Edgenuity Lesson Name
SI.	Science as Inquiry, Grades 8-10	
SI.1.	Compare and contrast scientific theories.	
		Atomic Theory
		Hypotheses, Theories, and Laws
SI.2.	Know that both direct and indirect observations are used by scientists to study the natural world and universe.	
		Analyzing Data
		Scientific Inquiry
SI.3.	Identify questions and concepts that guide scientific investigations.	
		Scientific Inquiry
SI.4.	Formulate and revise explanations and models using logic and evidence.	
		Atomic Theory
		Atoms
		Tools and Technology
SI.5.	Recognize and analyze alternative explanations and models.	
		Evaluating Scientific Explanations
3.2.	Physical Sciences: Chemistry and Physics	
3.2.A.	Chemistry	
3.2.10.A.	GRADE 10	
3.2.10.A1a.	Predict properties of elements using trends of the periodic table.	
		Metalloids
		Metals
		Nonmetals
		Periodic Table
3.2.10.A1b.	Identify properties of matter that depend on sample size. Explain the unique properties of water (polarity, high boiling point, forms hydrogen bonds, high specific heat) that support life on Earth.	
		Chemical Properties
		Density
		Lab: Density of Solids
		Physical Properties
		The Importance of Water
3.2.10.A2a.	Compare and contrast different bond types that result in the formation of molecules and compounds.	
		Compounds
		Covalent Bonds
		Ionic Bonds
		Metallic Bonds

Standard ID	Standard Text	Edgenuity Lesson Name
3.2.10.A2b.	Explain why compounds are composed of integer ratios of elements.	Balancing Chemical Equations Compounds
3.2.10.A3.	Describe phases of matter according to the kinetic molecular theory.	Changes of State States of Matter
3.2.10.A4a.	Describe chemical reactions in terms of atomic rearrangement and/or electron transfer.	Balancing Chemical Equations Introduction to Chemical Reactions Types of Chemical Reactions
3.2.10.A4b.	Predict the amounts of products and reactants in a chemical reaction using mole relationships.	Introduction to Stoichiometry Lab: Limiting Reactant and Percent Yield Limiting Reactant and Percent Yield Molar Masses Stoichiometric Calculations
3.2.10.A4c.	Explain the difference between endothermic and exothermic reactions.	Introduction to Chemical Reactions
3.2.10.A4d.	Identify the factors that affect the rates of reactions.	Lab: Rate of Chemical Reactions Rate of Chemical Reactions
	MODELS	
3.2.10.A5a.	Describe the historical development of models of the atom and how they contributed to modern atomic theory.	Atomic Theory Atoms
	SCALE	
3.2.10.A5b.	Apply the mole concept to determine number of particles and molar mass for elements and compounds.	Introduction to Stoichiometry Molar Masses Stoichiometric Calculations
3.2.B.	Physics	
3.2.10.B.	GRADE 10	
3.2.10.B1a.	Analyze the relationships among the net forces acting on a body, the mass of the body, and the resulting acceleration using Newton's Second Law of Motion.	Acceleration Introduction to Forces

Standard ID	Standard Text	Edgenuity Lesson Name
3.2.10.B1a.	Analyze the relationships among the net forces acting on a body, the mass of the body, and the resulting acceleration using Newton's Second Law of Motion. *(Cont'd)*	Introduction to Motion Lab: Motion Lab: Newton's Laws of Motion Newton's Laws of Motion Speed and Velocity
3.2.10.B1b.	Apply Newton's Law of Universal Gravitation to the forces between two objects.	Gravity
3.2.10.B1c.	Use Newton's Third Law to explain forces as interactions between bodies.	Lab: Newton's Laws of Motion Newton's Laws of Motion
3.2.10.B1d.	Describe how interactions between objects conserve momentum.	Momentum
3.2.10.B1e.	Conservation Laws	Energy Transformations Momentum
3.2.10.B2a.	Explain how the overall energy flowing through a system remains constant.	Energy Transformations Introduction to Energy Lab: Kinetic Energy Potential and Kinetic Energy
3.2.10.B2b.	Describe the work-energy theorem.	Introduction to Energy
3.2.10.B2c.	Explain the relationships between work and power.	Work and Power
3.2.10.B3a.	Explain how heat energy will move from a higher temperature to a lower temperature until equilibrium is reached.	Heat Temperature and Thermal Energy
3.2.10.B3b.	Analyze the processes of convection, conduction, and radiation between objects or regions that are at different temperatures.	Conduction Convection Lab: Thermal Energy Transfer Radiation

Standard ID	Standard Text	Edgenuity Lesson Name
3.2.10.B4a.	Describe quantitatively the relationships between voltage, current, and resistance to electrical energy and power.	
		Electric Charge Electric Circuits Electric Current Ohm's Law
3.2.10.B4b.	Describe the relationship between electricity and magnetism as two aspects of a single electromagnetic force.	
		Electric Current Electromagnetism Lab: Magnetic and Electric Fields Magnets and Magnetism
3.2.10.B5a.	Understand that waves transfer energy without transferring matter.	
		Introduction to Waves Properties of Waves
3.2.10.B5b.	Compare and contrast the wave nature of light and sound.	
		Properties of Light Properties of Sound Sound Waves The Electromagnetic Spectrum Wave Interactions
3.2.10.B5c.	Describe the components of the electromagnetic spectrum. Describe the difference between sound and light waves.	
		Properties of Light Sound Waves The Electromagnetic Spectrum
	PATTERNS SCALE MODELS CONSTANCY/CHANGE	
3.2.10.B6.	Explain how the behavior of matter and energy follow predictable patterns that are defined by laws.	
		Balancing Chemical Equations Energy Transformations
CC.3.	Core Standards for Reading and Writing in Science and Technology, Grades 9-10	
CC.3.5.9-10.	Reading Informational Text: Students read, understand, and respond to informational text with emphasis on comprehension, making connections among ideas and between texts with focus on textual evidence.	
	Key Ideas and Details	
CC.3.5.9-10.A.	Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	
		Newton's Laws of Motion

Standard ID	Standard Text	Edgenuity Lesson Name
CC.3.5.9-10.B.	Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	Newton's Laws of Motion
CC.3.5.9-10.C.	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	Lab: Magnetic and Electric Fields
	Craft and Structure	
CC.3.5.9-10.D.	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.	Physical Properties
CC.3.5.9-10.E.	Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., *force* , *friction* , *reaction force* , *energy*).	Potential and Kinetic Energy
CC.3.5.9-10.F.	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.	Atomic Theory
	Integration of Knowledge and Ideas	
CC.3.5.9-10.G.	Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	Changes of State
CC.3.5.9-10.H.	Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.	Atomic Theory
CC.3.5.9-10.I.	Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	Lab: Rate of Chemical Reactions Rate of Chemical Reactions
	Range and Level of Complex Texts	
CC.3.5.9-10.J.	By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.	Atoms

Standard ID	Standard Text	Edgenuity Lesson Name
CC.3.6.9-10.	Writing: Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.	
	Text Types and Purposes	
CC.3.6.9-10.A.	Write arguments focused on discipline-specific content.	
CC.3.6.9-10.A.1.	Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.	Gravity
CC.3.6.9-10.A.2.	Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.	Gravity
CC.3.6.9-10.A.3.	Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.	Gravity
CC.3.6.9-10.A.4.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	Gravity
CC.3.6.9-10.A.5.	Provide a concluding statement or section that follows from or supports the argument presented.	Gravity
CC.3.6.9-10.B.	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	
CC.3.6.9-10.B.1.	Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	Lab: Kinetic Energy
CC.3.6.9-10.B.2.	Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.	Lab: Kinetic Energy
CC.3.6.9-10.B.3.	Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.	Lab: Kinetic Energy
CC.3.6.9-10.B.4.	Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.	Lab: Kinetic Energy

Standard ID	Standard Text	Edgenuity Lesson Name
CC.3.6.9-10.B.5.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	Lab: Kinetic Energy
CC.3.6.9-10.B.6.	Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	Lab: Kinetic Energy
	Production and Distribution of Writing	
CC.3.6.9-10.C.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Lab: Motion
CC.3.6.9-10.D.	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	Gravity
CC.3.6.9-10.E.	Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.	Types of Chemical Reactions
	Research to Build and Present Knowledge	
CC.3.6.9-10.F.	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	Types of Chemical Reactions
CC.3.6.9-10.G.	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	Types of Chemical Reactions
CC.3.6.9-10.H.	Draw evidence from informational texts to support analysis, reflection, and research.	Types of Chemical Reactions
	Range of Writing	
CC.3.6.9-10.I.	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	Lab: Motion

Unit	Lesson	Lesson Objectives
The Scientific Process		
	Hypotheses, Theories, and Laws	
		Distinguish between hypotheses, theories, and laws.
		Explain that theories may change as new areas of science and technology develop.
		Give examples of how hypotheses lead to new experimentation.
		Identify examples of scientific theories and laws.
	Scientific Inquiry	
		Describe the process of scientific inquiry using the three types of scientific investigations, including the benefits and limitations of each.
		Distinguish between variables and controls in a scientific investigation.
		Identify questions that can be answered through scientific investigation.
	Tools and Technology	
		Describe the use of technology in science.
		Explain the function, usefulness, and limitations of models in science.
		Explain the relationship between science and technology.
	Experimental Design Principles	
		Distinguish between accuracy and precision.
		Evaluate data to determine accuracy and reproducibility.
		Explain the difference between replication and repetition.
		Write measurements in standard form and in scientific notation.
	Analyzing Data	
		Analyze data to determine validity and reliability.
		Examine charts and graphs to predict trends in the data.
		Use data to draw inferences and formulate conclusions.
	Evaluating Scientific Explanations	
		Analyze and evaluate scientific explanations.
		Use evidence to critique scientific arguments.
Atoms and the Periodic Table		
	Atomic Theory	
		Compare the models of the atom put forth by Dalton, Thomson, Rutherford, and Bohr.
		Describe the development of the modern model of the atom.
	Atoms	
		Describe the parts of an atom.
		Identify the masses, locations, and charges of protons, neutrons, and electrons.

Unit	Lesson	Lesson Objectives
	Periodic Table	
		Describe the organization of the periodic table.
		Determine an element's symbol, atomic number, and mass number from the periodic table.
		Examine the history of the periodic table.
	Metals	
		Describe the characteristic properties of metals.
		Explain how and why the reactivity of metals changes in the periodic table.
		Identify the location of metals in the periodic table.
	Nonmetals	
		Describe the characteristic properties of nonmetals.
		Explain how and why the reactivity of nonmetals changes in the periodic table.
		Identify the location of nonmetals in the periodic table.
	Metalloids	
		Describe the characteristic properties of metalloids.
		Explain why most metalloids are used as semiconductors.
		Identify the location of metalloids in the periodic table.
Matter and Its Properties		
	Physical Properties	
		Describe and give examples of physical properties of matter.
		Explain how and why matter is conserved during a physical change.
		Explain what happens during a physical change.
		Identify examples of physical changes.
	Density	
		Calculate the mass, volume, or density of an object given the other two measurements.
		Determine whether an object will sink or float relative to the density of the surrounding liquid.
		Explain density and state the SI units used to measure it.
	Lab: Density of Solids	
		Calculate the density of several solid objects.
		Measure the mass and volume of various solid objects.
		Use density to identify an unknown substance.
	States of Matter	
		Describe the arrangement and motion of atoms in the different states of matter.
		Discriminate the characteristics of solids, liquids, and gases.
	Changes of State	
		Describe what happens during the different changes of state.
		Explain how energy is related to changes of state.

Unit	Lesson	Lesson Objectives
	Chemical Properties	
		Describe and give examples of chemical properties of matter.
		Differentiate between physical and chemical changes.
		Explain what happens during a chemical change.
		Identify examples of chemical changes.
Chemical Bonding		
	Ionic Bonds	
		Describe characteristics of ionic bonds.
		Explain how ionic bonds form.
		Give examples of ionic compounds.
		Identify the properties of ionic compounds.
	Covalent Bonds	
		Describe characteristics of covalent bonds.
		Explain how covalent bonds form.
		Give examples of covalent compounds.
		Identify the properties of covalent compounds.
	Metallic Bonds	
		Describe how metallic bonding explains the properties of metals.
		Describe the characteristics of metallic bonds.
		Explain how metallic bonds form.
	Compounds	
		Describe the defining characteristics of a compound.
		Determine the number of atoms of each element in a chemical formula.
		Explain how chemical formulas represent compounds.
		Use models to visualize the chemical structure of a compound.
	The Importance of Water	
		Describe the steps of the water cycle.
		Identify the unique chemical and physical properties of water.
		Interpret the importance of water to living organisms.
		Science Practice: Predict trends and outcomes based on a given set of data.
Chemical Reactions and Stoichiometry		
	Introduction to Chemical Reactions	
		Describe the evidence that shows that a chemical reaction has occurred.
		Explain the difference between an endothermic and an exothermic reaction.
		Recognize that a chemical reaction is a chemical change.

Unit	Lesson	Lesson Objectives
	Balancing Chemical Equations	
		Demonstrate how to balance a chemical equation.
		Explain what it means for a chemical equation to be balanced.
		Relate balanced chemical equations to the law of conservation of mass.
	Types of Chemical Reactions	
		Distinguish among the types of chemical reactions.
		Predict the product of each type of chemical reaction.
	Rate of Chemical Reactions	
		Describe the factors that affect the rate of a chemical reaction.
		Explain activation energy and its importance to chemical reactions.
		Recognize how a catalyst and an inhibitor affect a chemical reaction.
	Lab: Rate of Chemical Reactions	
		Describe the signs of a chemical reaction.
		Identify how temperature and surface area affect the rate of a chemical reaction.
		Science Practice: Conduct several controlled tests of multiple variables using repeated trials during an investigation about chemical reaction rate.
	Molar Masses	
		Define a mole and explain its role in the measurement of matter.
		Determine the molar mass of a molecule from its chemical formula.
		Explain the relationship between the mole and Avogadro's number.
		Science Practice: Perform math calculations to determine the number of particles in a given sample of a substance.
	Introduction to Stoichiometry	
		Perform stoichiometric calculations to determine the mole-to-mole relationships between reactants and products of a reaction.
		Use a balanced equation to write mole ratios correctly to use in stoichiometry problems.
		Science Practice: Use mathematical procedures, including dimensional analysis and significant figures, when solving mole-to-mole stoichiometry problems.
	Stoichiometric Calculations	
		Identify and solve stoichiometric problems that relate mass to moles and mass to mass.
		Perform stoichiometric calculations to determine mass relationships between reactants and products of a reaction.
		Use molar mass to write conversion factors that convert between mass and moles.
		Science Practice: Use mathematical procedures, including dimensional analysis and significant figures, when solving mole-to-mass, mass-to-mole, and mass-to-mass stoichiometric problems.
	Limiting Reactant and Percent Yield	
		Calculate the percent yield of a reaction.
		Identify the limiting and excess reactants for a given reaction.
		Use the limiting reactant to predict the theoretical yield of a reaction.
		Science Practice: Use mathematical procedures, including dimensional analysis and significant figures, when solving limiting reactant and percent yield stoichiometry problems.

Unit	Lesson	Lesson Objectives
	Lab: Limiting Reactant and Percent Yield	
		Calculate the percent yield for a given reaction.
		Calculate the theoretical yield for a given reaction.
		Identify the limiting and excess reactants for a given reaction.
		Science Practice: Identify and explain sources of error in an experiment.
Motion and Forces		
	Introduction to Motion	
		Describe the position of an object.
		Distinguish between distance and displacement.
		Explain how an object's motion is relative to a reference point or frame.
	Speed and Velocity	
		Differentiate between speed and velocity.
		Interpret graphs of distance versus time.
		Solve problems involving distance, time, speed, and/or velocity.
	Acceleration	
		Describe the concept of acceleration.
		Interpret graphs of velocity versus time.
		Solve problems involving velocity, time, and acceleration.
	Lab: Motion	
		Graph changes in motion.
		Interpret data to determine acceleration.
		Measure distance and time to determine speed.
	Introduction to Forces	
		Describe the concept of force.
		Distinguish between balanced and unbalanced forces and their effect on motion.
		Explain how to determine the net force on an object.
	Gravity	
		Describe how gravity affects projectile motion.
		Describe Newton's law of universal gravitation.
		Explain the concept of free fall.
		Identify and describe the factors that affect the gravitational force between two objects.
	Newton's Laws of Motion	
		Describe Newton's first law of motion and how it relates to inertia.
		Explain Newton's third law of motion and how it relates to action and reaction forces.
		Identify applications of Newton's three laws of motion.
		Use Newton's second law of motion to calculate force, mass, and acceleration.

Unit	Lesson	Lesson Objectives
	Lab: Newton's Laws of Motion	
		Demonstrate Newton's first law.
		Verify Newton's second law by changing the variables F, m, or a.
	Momentum	
		Apply Newton's third law of motion to understand what happens to momentum when two objects collide.
		Define and calculate momentum.
		Explain how momentum is conserved.
Work, Power, and Energy		
	Work and Power	
		Calculate power.
		Calculate the work done on an object.
		Explain how force, work, and power are related.
		Identify when work is done.
	Introduction to Energy	
		Define energy.
		Explain how energy and work are related.
		Identify and describe the different forms of energy.
	Potential and Kinetic Energy	
		Calculate the kinetic energy in a system.
		Calculate the potential energy in a system.
		Distinguish between potential and kinetic energy.
		Explain how energy is transferred in a moving system.
	Lab: Kinetic Energy	
		Calculate the kinetic energy of objects of different mass.
		Determine the kinetic energy of objects at different speeds.
		Graph data to illustrate changes in kinetic energy.
	Energy Transformations	
		Explain how energy changes form.
		Identify examples of energy transformations.
		Summarize the law of conservation of energy.
	Temperature and Thermal Energy	
		Describe how temperature is measured.
		Convert temperature readings between different temperature scales.
		Describe how thermal energy relates to temperature.
		Explain how temperature relates to kinetic energy.

Unit	Lesson	Lesson Objectives
	Heat	
		Distinguish between heat and thermal energy.
		Explain why some substances change temperature more easily than others.
		Predict how thermal energy flows between objects at different temperatures.
	Conduction	
		Distinguish between insulators and conductors.
		Explain how molecular movement transfers thermal energy by conduction.
		Identify situations in which conduction occurs.
	Convection	
		Describe the motion of liquids and gases due to convection.
		Explain how fluid movement transfers thermal energy by convection.
		Identify situations in which convection occurs.
	Radiation	
		Describe the role of color and texture in absorbers and reflectors.
		Explain how electromagnetic waves transfer energy by radiation.
		Identify situations in which radiation occurs.
	Lab: Thermal Energy Transfer	
		Determine how mass affects the amount of thermal energy transferred.
		Investigate how different materials transfer thermal energy.
		Observe and compare the specific heat of water with the specific heat of other substances.
Waves, Sound, and Light		
	Introduction to Waves	
		Compare and contrast transverse waves and longitudinal waves.
		Define waves and explain how they carry energy.
		Distinguish between mechanical waves and electromagnetic waves.
	Properties of Waves	
		Calculate the speed of a transverse wave.
		Describe how a wave's amplitude is related to the energy the wave carries.
		Describe the relationship between the frequency and wavelength of a wave.
		Explain why waves travel at different speeds.
	Wave Interactions	
		Describe how a wave's direction is changed by reflection, refraction, and diffraction.
		Differentiate between constructive and destructive interference.
		Explain what happens when waves interact.

Unit	Lesson	Lesson Objectives
	Sound Waves	
		Describe how sound waves are produced and how they travel.
		Explain how different materials and different temperatures affect the speed of sound waves.
		Identify the features of a sound wave.
	Properties of Sound	
		Describe resonance and sound quality.
		Describe the factors that determine the loudness of a sound.
		Explain the Doppler effect.
		Identify the factors that affect the pitch of a sound.
	The Electromagnetic Spectrum	
		Describe the different parts of the electromagnetic spectrum.
		Distinguish how electromagnetic waves differ from one another.
		Identify how different types of electromagnetic waves are used.
	Properties of Light	
		Describe the wave and particle models of light.
		Explain what happens when light interacts with objects.
		Recognize what determines the color of an object.
Electricity and Magnetism		
	Electric Charge	
		Analyze the factors that affect the strength of an electric force.
		Describe the electric field due to a charge.
		Determine how electric charges interact.
		Explain how electrons cause objects to become electrically charged.
	Electric Current	
		Describe resistance and how it affects current.
		Distinguish between conductors, superconductors, semiconductors, and insulators.
		Explain how an electric current is produced.
		Explain the relationship between voltage and an electric current.
	Ohm's Law	
		Calculate the voltage, current, or resistance given the other two quantities.
		Explain the relationship between current, voltage, and resistance (Ohm's law).
	Electric Circuits	
		Interpret the electric symbols for the parts of a circuit.
		Contrast series and parallel circuits.
		Explain how a circuit functions.
		Identify open and closed circuits.

Unit	Lesson	Lesson Objectives
	Magnets and Magnetism	
		Describe Earth's magnetic field.
		Describe the properties of magnets.
		Determine how magnetic poles interact with each other.
		Illustrate the magnetic field around a magnet.
	Electromagnetism	
		Describe the characteristics of solenoids and electromagnets.
		Explain how an electric current is produced by a magnet.
		Indicate how magnetism is produced by electric currents.
	Lab: Magnetic and Electric Fields	
		Demonstrate and describe electric fields.
		Demonstrate and describe magnetic fields.
		Show how magnetic and electric fields are related.

Standard ID	Standard Text	Edgenuity Lesson Name
PA.SI.	Science as Inquiry	
SI.1.	Examine the status of existing theories.	
		Hypotheses, Theories, and Laws
		Atomic Spectra
		Special Relativity
		Origin and Evolution of the Universe
SI.2.	Evaluate experimental information for relevance and adherence to science processes.	
		Scientific Methods
		Data Analysis
SI.3.	Judge that conclusions are consistent and logical with experimental conditions.	
		Evaluating Scientific Explanations
SI.4.	Interpret results of experimental research to predict new information, propose additional investigable questions, or advance a solution.	
		The Progress of Scientific Knowledge
SI.5.	Communicate and defend a scientific argument.	
		Scientific Methods
PA.P.	Physics - Science and Technology and Engineering Education	
3.2.	Physical Sciences: Chemistry and Physics	
3.2.B.	Physics	
3.2.P.B1a.	Differentiate among translational motion, simple harmonic motion, and rotational motion in terms of position, velocity, and acceleration.	
		Speed and Velocity
		Acceleration
		Lab: Motion with Constant Acceleration
		Vectors
		Projectile Motion
		Universal Law of Gravitation
		Centripetal Acceleration
		Circular Motion
		Orbital Motion
		Simple Harmonic Motion
3.2.P.B1b.	Use force and mass to explain translational motion or simple harmonic motion of objects.	
		Introduction to Forces
		Newton's First and Third Laws
		Newton's Second Law
		Lab: Newton's Second Law
		Simple Harmonic Motion
3.2.P.B1c.	Relate torque and rotational inertia to explain rotational motion.	

Standard ID	Standard Text	Edgenuity Lesson Name
3.2.P.B2a.	Explain the translation and simple harmonic motion of objects using conservation of energy and conservation of momentum.	Impulse and Momentum Conservation of Momentum Lab: Conservation of Linear Momentum Work and Power Potential Energy Kinetic Energy Energy Transformations Conservation of Energy
3.2.P.B2b.	Describe the rotational motion of objects using the conservation of energy and conservation of angular momentum.	
3.2.P.B2c.	Explain how gravitational, electrical, and magnetic forces and torques give rise to rotational motion.	Centripetal Acceleration Circular Motion Orbital Motion
3.2.P.B3.	Analyze the factors that influence convection, conduction, and radiation between objects or regions that are at different temperatures.	Temperature and Heat Heat Transfer Lab: Mechanical Equivalent of Heat
3.2.P.B4a.	Explain how stationary and moving particles result in electricity and magnetism.	First Law of Thermodynamics Second Law of Thermodynamics Electrostatics Coulomb's Law Electric Fields Magnets and Magnetism Magnetic Field and Force Electromagnetic Induction Lab: Electromagnetic Induction
3.2.P.B4b.	Develop qualitative and quantitative understanding of current, voltage, resistance, and the connections among them.	Ohm's Law Electric Circuits Lab: Circuit Design
3.2.P.B4c.	Explain how electrical induction is applied in technology.	Lab: Circuit Design Applications of Electromagnetic Induction

Standard ID	Standard Text	Edgenuity Lesson Name
3.2.P.B5a.	Explain how waves transfer energy without transferring matter.	Introduction to Waves
3.2.P.B5b.	Explain how waves carry information from remote sources that can be detected and interpreted.	Wave Properties Wave Interactions Sound Waves Electromagnetic Waves Reflection and Refraction Mirrors Lenses Diffraction Lab: Waves and Diffraction
3.2.P.B5c.	Describe the causes of wave frequency, speed, and wave length.	Wave Properties
3.2.P.B6.	(PATTERNS SCALE MODELS CONSTANCY/CHANGE) Use Newton's laws of motion and gravitation to describe and predict the motion of objects ranging from atoms to the galaxies.	Newton's First and Third Laws Newton's Second Law Lab: Newton's Second Law Universal Law of Gravitation Orbital Motion Earth-Moon-Sun System States of Matter Changes of State

Unit	Lesson	Lesson Objectives
The Scientific Process		
	Scientific Methods	
		Describe how scientists perform experiments and gather data.
		Describe the function of models in science, and recognize the usefulness and limitations of models as representations.
		Explain the importance of controlled tests in scientific investigations.
		Show how scientists communicate, share information, and support the importance of peer review.
		Science Practice: Write a procedure for a controlled investigation to answer a question.
	Hypotheses, Theories, and Laws	
		Distinguish between hypotheses, theories, and laws.
		Explain that theories may change as new areas of science and technology develop.
		Give examples of how hypotheses lead to new experimentation.
		Identify examples of scientific theories and laws.
	Data Analysis	
		Distinguish between direct and inverse relationships.
		Calculate percent error.
		Read and interpret graphs.
	Evaluating Scientific Explanations	
		Analyze and evaluate scientific explanations.
		Use evidence to critique scientific arguments.
	The Progress of Scientific Knowledge	
		Analyze how new technologies and experiments affect previous scientific explanations.
		Describe the cumulative nature of science and give examples of how a diverse group of scientists have contributed to science.
		Explain why curiosity, creativity, openness, and skepticism are important in the progress of science.
		Science Practice: Summarize the history of a scientific discovery.
One-Dimensional Motion and Forces		
	Speed and Velocity	
		Describe the motion of an object using different reference frames.
		Differentiate between speed and velocity.
		Interpret motion maps to describe linear motion.
		Use graphs and equations to solve speed and velocity problems.
	Acceleration	
		Distinguish between constant velocity and constant acceleration.
		Interpret motion maps to describe linear motion.
		Solve problems involving distance, time, velocity, and acceleration.
		Use graphs to analyze motion with constant acceleration.

Unit	Lesson	Lesson Objectives
	Lab: Motion with Constant Acceleration	
		Calculate the average velocity of a moving object.
		Recognize the relationships between position, time, velocity, and acceleration.
		Use graphs to determine acceleration.
	Introduction to Forces	
		Analyze free-body diagrams.
		Determine how net force affects the motion of an object.
		Identify and describe various forces.
	Newton's First and Third Laws	
		Describe Newton's first law of motion and how it relates to inertia.
		Explain Newton's third law of motion and how it relates to action and reaction forces.
		Use vectors to calculate the effect of forces on objects.
	Newton's Second Law	
		Calculate force, mass, or acceleration given the other two quantities.
		Describe Newton's second law of motion.
		Interpret free-body diagrams for accelerating objects.
	Lab: Newton's Second Law	
		Calculate the acceleration of a moving object.
		Determine how force and mass affect acceleration.
	Impulse and Momentum	
		Analyze and compare the momentum and impulse of different objects.
		Calculate mass, velocity, or momentum given the other two quantities.
		Describe impulse and how it relates to momentum.
		Solve problems involving impulse.
	Conservation of Momentum	
		Apply the law of conservation of momentum to analyze collisions between objects.
		Describe the law of conservation of momentum.
		Solve problems involving the conservation of momentum.
	Lab: Conservation of Linear Momentum	
		Calculate the momentum of a moving object before and after a collision.
		Demonstrate that momentum is conserved during a collision.
Two-Dimensional Motion and Gravity		
	Vectors	
		Resolve a vector into horizontal and vertical components.
		Use vector diagrams to determine the resultant vector.

Unit	Lesson	Lesson Objectives
	Projectile Motion	
		Identify examples of projectile motion.
		Recognize that the horizontal and vertical motions of a projectile are independent.
		Solve problems involving projectile motion.
	Universal Law of Gravitation	
		Describe the effect of gravity on an object.
		Explain the relationships among gravitational force, mass, and distance.
		Solve problems that involve the universal law of gravitation.
	Centripetal Acceleration	
		Define and identify examples of centripetal acceleration.
		Describe and calculate tangential speed.
		Solve problems involving centripetal acceleration.
	Circular Motion	
		Describe how circular motion is caused by centripetal force.
		Explain the relationship between centripetal force and inertia.
		Interpret motion maps to describe circular motion.
		Use centripetal force concepts to solve problems.
	Orbital Motion	
		Explain how Newton's universal law of gravitation affects orbital motion.
		Identify the forces acting on an object in orbit.
		Solve problems involving the orbital speed and period of an object in orbit.
	Earth-Moon-Sun System	
		Describe Kepler's three laws of planetary motion.
		Explain the effects of Earth, the moon, and the Sun on each other.
		Solve problems using Kepler's laws.
Work, Power, and Energy		
	Work and Power	
		Calculate work and power.
		Compare the work done in different situations.
		Define and describe work.
		Explain how work and power are related.
	Potential Energy	
		Identify and describe different types of potential energy.
		Solve problems involving the potential energy of an object.

Unit	Lesson	Lesson Objectives
	Kinetic Energy	
		Calculate kinetic energy, mass, or velocity given the other two quantities.
		Define kinetic energy and identify situations in which it's present.
		Describe the work-energy theorem and use it to solve problems.
	Energy Transformations	
		Analyze and interpret energy transfer diagrams.
		Explain how energy changes form.
		Identify and describe examples of energy transformations.
		Solve problems involving energy transformations.
	Conservation of Energy	
		Apply the law of conservation of energy to solve problems.
		Explain the law of conservation of energy.
		Use energy transfer diagrams to illustrate that energy is conserved.
Thermal Energy and Thermodynamics		
	Temperature and Heat	
		Describe specific heat and explain why it differs from one substance to another.
		Distinguish between temperature, thermal energy, and heat.
		Explain how temperature relates to kinetic energy.
		Solve problems involving specific heat.
	Heat Transfer	
		Describe how fluid movement transfers thermal energy by convection.
		Explain how electromagnetic waves transfer energy by radiation.
		Explain how molecular movement transfers thermal energy by conduction.
	Lab: Mechanical Equivalent of Heat	
		Calculate gravitational potential energy and heat.
		Describe the conversion of gravitational potential energy to thermal energy in a system.
		Relate the potential energy of an object to the temperature change of water.
	States of Matter	
		Differentiate among the four states of matter.
		Identify the properties of the fourth state of matter: plasma.
	Changes of State	
		Explain and interpret heating curves.
		Identify and describe the six changes of state.
		Solve problems involving latent heat of fusion and latent heat of vaporization.

Unit	Lesson	Lesson Objectives
	First Law of Thermodynamics	
		Apply the first law of thermodynamics to describe how heat engines work.
		Explain the first law of thermodynamics.
		Solve problems using the first law of thermodynamics.
	Second Law of Thermodynamics	
		Apply the second law of thermodynamics to describe how heat engines work.
		Describe how the first and second laws of thermodynamics are related.
		Explain why entropy increases over time.
Waves, Sound, and Light		
	Simple Harmonic Motion	
		Describe simple harmonic motion.
		Explain how position, velocity, and acceleration change during simple harmonic motion.
		Solve problems using Hooke's law.
	Introduction to Waves	
		Compare and contrast transverse waves and longitudinal waves.
		Define waves and explain how they carry energy.
		Differentiate mechanical and electromagnetic waves.
		Identify everyday examples of transverse and longitudinal waves.
	Wave Properties	
		Analyze the relationship between wavelength, frequency, and wave speed.
		Identify and describe the properties of transverse and longitudinal waves.
		Identify factors that affect wave speed.
		Solve problems involving wavelength, frequency, and wave speed.
	Wave Interactions	
		Compare and contrast constructive and destructive interference.
		Distinguish between absorption, transmission, reflection, refraction, and diffraction.
		Identify everyday examples of wave interactions.
	Sound Waves	
		Analyze how sounds are created and propagated.
		Examine how the Doppler effect applies to sound waves.
		Identify and describe properties of sound waves.
	Electromagnetic Waves	
		Identify and compare the different regions of the electromagnetic spectrum.
		Identify uses and applications of electromagnetic waves.
		Solve problems involving frequency, wavelength, speed, and energy.

Unit	Lesson	Lesson Objectives
	Reflection and Refraction	
		Analyze and interpret ray diagrams.
		Apply Snell's law to solve problems.
		Differentiate between reflection and refraction.
		Use the law of reflection to make predictions.
	Mirrors	
		Distinguish between plane, concave, and convex mirrors.
		Interpret ray diagrams to predict the location, type, orientation, and size of an image formed by a mirror.
		Solve problems involving mirrors.
	Lenses	
		Distinguish between concave and convex lenses.
		Interpret ray diagrams to predict the location, type, orientation, and size of an image formed by a lens.
		Solve problems involving lenses.
	Diffraction	
		Analyze how light waves bend around objects.
		Identify everyday examples of diffraction.
		Solve problems involving diffraction.
	Lab: Waves and Diffraction	
		Demonstrate diffraction and explain why it occurs.
		Describe the relationship between wavelength, gap width, and diffraction.
		Solve problems involving diffraction.
Electricity		
	Electrostatics	
		Analyze the relationship between electric charge and electric force.
		Distinguish between conductors and insulators.
		Examine charging by friction, conduction, and induction.
	Coulomb's Law	
		Compare electric force with gravitational force.
		Examine the factors that affect the electric force between two objects.
		Solve problems using Coulomb's law.
	Electric Fields	
		Analyze and interpret electric field lines.
		Describe the electric field due to a charge.
		Solve problems involving the electric field, charge, and force on an object.

Unit	Lesson	Lesson Objectives
	Ohm's Law	
		Examine current, resistance, and voltage.
		Solve problems involving current, charge, and time.
		Use Ohm's law to calculate voltage, current, or resistance.
	Electric Circuits	
		Apply Ohm's law to calculate voltage, current, or resistance in a parallel or series circuit.
		Compare and contrast parallel and series circuits.
		Identify circuits as open, closed, or short.
		Interpret circuit diagrams.
	Lab: Circuit Design	
		Calculate the power used by elements in a circuit.
		Construct series and parallel circuits.
		Use Ohm's law to calculate current, voltage, and resistance.
Magnetism and Electromagnetism		
	Magnets and Magnetism	
		Analyze the magnetic field around a magnet.
		Determine how magnetic poles interact with each other.
		Distinguish between temporary and permanent magnets.
		Examine how magnetic domains are aligned in a magnet.
	Magnetic Field and Force	
		Analyze the magnetic field produced by a current-carrying wire.
		Apply the right-hand rule to determine the direction of the magnetic force on a charge.
		Solve problems involving magnetic force.
		Use the right-hand rule to determine the direction of the magnetic field in a current-carrying wire.
	Electromagnetic Induction	
		Examine how an electric current is produced by a magnet.
		Identify the characteristics of solenoids and electromagnets.
		Indicate how magnetism is produced by electric currents.
	Lab: Electromagnetic Induction	
		Examine how magnetic polarity affects the direction of induced current in a loop of wire.
		Recognize that a moving magnet can induce an electric field, causing current to flow in a loop of wire.
	Applications of Electromagnetic Induction	
		Analyze how a transformer reduces voltage.
		Examine how a generator works.
		Explain how an electric motor uses a magnetic force to cause motion.

Unit	Lesson	Lesson Objectives
Modern Physics		
	Atomic Spectra	
		Compare and explain the emission spectra produced by various atoms.
		Define spectroscopy and its applications.
		Outline the historical development of the atomic theory.
		Understand the concepts of emission and absorption spectra.
	Special Relativity	
		Analyze the motion of an object using different reference frames.
		Examine how the special theory of relativity leads to time dilation and length contraction.
		Identify Einstein's two postulates of special relativity.
	Origin and Evolution of the Universe	
		Analyze how stellar spectra are used to identify the composition and motion of a star.
		Describe the evolution of the universe.
		Distinguish between the different types of stars and their life cycles.
		Examine evidence for the big bang theory.

Physics
Course Overview and Syllabus

Course Number: SC3211 IC

Grade level: 11–12

Prerequisite Courses: Algebra

Credits: 1.0

Course Description

This full-year course focuses on traditional concepts in physics, and encourages exploration of new discoveries in this field of science. The course includes an overview of scientific principles and procedures, and leads students toward a clearer understanding of motion, energy, electricity, magnetism, and the laws that govern the physical universe. As students refine and expand their understanding of physics, they will apply their knowledge in experiments that require them to ask questions and create hypotheses. Throughout the course, students solve problems, reason abstractly, and learn to think critically.

Course Objectives

Throughout the course, you will meet the following goals:

- Explain the relationship between forces and motion.
- Recognize the interdependence of work and energy.
- Relate heat and temperature change on the macroscopic level to particle motion on the microscopic level.
- Demonstrate an understanding of waves, including sound and light.
- Investigate the electromagnetic spectrum.
- Analyze the connection between electricity and magnetism.
- Examine nuclear reactions and their applications.
- Explore recent advancements in physics such as the dual nature of light and nanotechnology.

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Labs that allow you to explore physics applications

- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, e-mail, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Quiz	20%
Test	30%
Exam	20%
Assignment	10%
Lab	10%
Additional	0%
Project	10%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Scientific Method
Unit 2: One-Dimensional Motion and Forces
Unit 3: Two-Dimensional Motion and Gravity
Unit 4: Work, Power, and Energy
Unit 5: Thermal Energy and Thermodynamics
Unit 6: Waves, Sound, and Light
Unit 7: Electricity
Unit 8: Magnetism and Electromagnetism
Unit 9: Modern Physics

Chemistry

Couse Overview and Syllabus

Course Number: SC3210

Grade level: 9–12

Prerequisite Courses: None

Credits: 1.0

Course Description

This rigorous full-year course engages students in the study of the composition, properties, changes, and interactions of matter. The course covers the basic concepts of chemistry and includes 18 virtual laboratory experiments that encourage higher-order thinking applications. The components of this course include chemistry and its methods, the composition and properties of matter, changes and interactions of matter, factors affecting the interactions of matter, electrochemistry, organic chemistry, biochemistry, nuclear chemistry, mathematical applications, and applications of chemistry in the real world.

Course Objectives

Throughout the course, you will meet the following goals:

- Understand and apply the methods of chemistry: scientific thinking, measurements, and using mathematics as a tool for logically solving chemistry problems.
- Describe the composition and properties of matter as well as the changes that matter undergoes.
- Trace the development of the atomic theory.
- Examine the relationship between the elements on the periodic table.
- Describe chemical reactions and interactions and their causes and effects in real-world applications.
- Apply critical thinking, reasoning, and decision-making skills to solve mathematical and non-mathematical chemistry problems.
- Appreciate how chemistry affects daily life and society.

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Assignments	10%
Labs	20%
Lesson Quizzes	20%
Unit Tests	30%
Cumulative Exams	20%
Additional	0%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: The Scientific Process

Unit 2: Atomic Structure and the Periodic Table

Unit 3: States and Changes of Matter

Unit 4: Chemical Bonding

Unit 5: Stoichiometry

Unit 6: The Gas Laws

Unit 7: Thermodynamics

Unit 8: Reaction Rate and Energy in Chemical Reactions

Unit 9: Mixtures and Solutions

Unit 10: Acids and Bases

Unit 11: Organic Chemistry and Biochemistry

Unit 12: Nuclear Chemistry

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Appendix R
Math Core Curriculum

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.6.	Grade 6	
CCSS.Math.Content.6.RP	Ratios and Proportional Relationships	
CCSS.Math.Content.6.RP.A	Understand ratio concepts and use ratio reasoning to solve problems.	
CCSS.Math.Content.6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	
CCSS.Math.Content.6.RP.A.3a	Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	
		Equivalent Ratios
		Ratios in Real-World Situations
CCSS.Math.Content.6.NS	The Number System	
CCSS.Math.Content.6.NS.B	Compute fluently with multi-digit numbers and find common factors and multiples.	
CCSS.Math.Content.6.NS.B.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	
		Estimating and Finding Decimal Products
CCSS.Math.Content.6.NS.B.4	Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express 36 + 8 as 4 (9 + 2).	
		Factors and Multiples
		Prime Numbers and Prime Factorization
CCSS.Math.Content.6.NS	The Number System	
CCSS.Math.Content.6.NS.C	Apply and extend previous understandings of numbers to the system of rational numbers.	
CCSS.Math.Content.6.NS.C.7	Understand ordering and absolute value of rational numbers.	
CCSS.Math.Content.6.NS.C.7c	Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of -30 dollars, write |-30| = 30 to describe the size of the debt in dollars.	
		Absolute Value
CCSS.Math.Content.6.NS.C.7d	Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.	
		Absolute Value

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.6.EE	Expressions and Equations	
CCSS.Math.Content.6.EE.A	Apply and extend previous understandings of arithmetic to algebraic expressions.	
CCSS.Math.Content.6.EE.A.2	Write, read, and evaluate expressions in which letters stand for numbers.	
CCSS.Math.Content.6.EE.A.2a	Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation ''Subtract y from 5'' as $5 - y$.	
		Expressions with and without Parentheses
		Writing and Evaluating Expressions
CCSS.Math.Content.6.EE.A.2b	Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.	
		Expressions with and without Parentheses
CCSS.Math.Content.6.EE.A.2c	Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.	
		Expressions with and without Parentheses
		Writing and Evaluating Expressions
CCSS.Math.Content.6.EE.A.3	Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression $3 (2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6 (4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.	
		Equivalent Expressions
CCSS.Math.Content.6.EE.A.4	Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.	
		Equivalent Expressions
CCSS.Math.Content.6.EE.B	Reason about and solve one-variable equations and inequalities.	
CCSS.Math.Content.6.EE.B.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	
		Writing and Evaluating Expressions

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.6.G	Geometry	
CCSS.Math.Content.6.G.A	Solve real-world and mathematical problems involving area, surface area, and volume.	
CCSS.Math.Content.6.G.A.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	
		Area of Special Quadrilaterals
		Area of Triangles
CCSS.Math.Content.6.G.A.3	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.	
		Finding Area on a Coordinate Plane
CCSS.Math.Content.6.SP	Statistics and Probability	
CCSS.Math.Content.6.SP.A	Develop understanding of statistical variability.	
CCSS.Math.Content.6.SP.A.2	Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.	
		Box Plots
		Summarizing Data Sets with Statistics
CCSS.Math.Content.6.SP.A.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	
		Summarizing Data Sets with Statistics
CCSS.Math.Content.6.SP.B	Summarize and describe distributions.	
CCSS.Math.Content.6.SP.B.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	
		Box Plots
CCSS.Math.Content.6.SP.B.5	Summarize numerical data sets in relation to their context, such as by:	
CCSS.Math.Content.6.SP.B.5d	Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	
		Summarizing Data Sets with Statistics

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.7.	Grade 7	
CCSS.Math.Content.7.RP	Ratios and Proportional Relationships	
CCSS.Math.Content.7.RP.A	Analyze proportional relationships and use them to solve real-world and mathematical problems.	
CCSS.Math.Content.7.RP.A.1	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction (1/2)/(1/4) miles per hour, equivalently 2 miles per hour.	
		Unit Rates
CCSS.Math.Content.7.RP.A.2	Recognize and represent proportional relationships between quantities.	
CCSS.Math.Content.7.RP.A.2a	Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.	
		Unit Rates
CCSS.Math.Content.7.RP.A.2b	Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.	
		Proportions
		Solving Scale Problems Using Proportions
CCSS.Math.Content.7.RP.A.3	Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.	
		Finding a Percent of a Number
		Finding a Total Amount
		Percent Increase and Decrease
		Proportions
CCSS.Math.Content.7.NS	The Number System	
CCSS.Math.Content.7.NS.A	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	
CCSS.Math.Content.7.NS.A.1	Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	
CCSS.Math.Content.7.NS.A.1b	Understand $p + q$ as the number located a distance $\|q\|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.	
		Adding and Subtracting Decimals
		Adding Integers

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.7.NS.A.1c	Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.	
		Adding and Subtracting Decimals
		Subtracting Integers
CCSS.Math.Content.7.NS.A.2	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	
CCSS.Math.Content.7.NS.A.2a	Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (-1)(-1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.	
		Multiplying Fractions
		Multiplying Integers
CCSS.Math.Content.7.NS.A.2b	Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.	
		Dividing Integers
CCSS.Math.Content.7.NS.A.2c	Apply properties of operations as strategies to multiply and divide rational numbers.	
		Dividing Fractions
		Multiplying Fractions
CCSS.Math.Content.7.NS.A.3	Solve real-world and mathematical problems involving the four operations with rational numbers.	
		Finding a Percent of a Number
		Finding a Total Amount
		Percent Increase and Decrease

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.7.EE	Expressions and Equations	
CCSS.Math.Content.7.EE.B	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	
CCSS.Math.Content.7.EE.B.3	Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.	Adding and Subtracting Decimals Dividing Fractions Multiplying Fractions Solving Two-Step Equations
CCSS.Math.Content.7.EE.B.4	Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.	
CCSS.Math.Content.7.EE.B.4a	Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?	Addition and Subtraction Equations Multiplication and Division Equations Solving Two-Step Equations
CCSS.Math.Content.7.EE.B.4b	Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.	Solving Two-Step Inequalities

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.7.G	Geometry	
CCSS.Math.Content.7.G.A	Draw construct, and describe geometrical figures and describe the relationships between them.	
CCSS.Math.Content.7.G.A.1	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	
		Determining a Scale Factor
		Solving Scale Problems Using Proportions
CCSS.Math.Content.7.G.A.2	Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	
		Constructing Triangles
CCSS.Math.Content.7.G.B	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	
CCSS.Math.Content.7.G.B.6	Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	
		Surface Area of Composite Figures
		Volume of Composite Figures
CCSS.Math.Content.7.SP	Statistics and Probability	
CCSS.Math.Content.7.SP.A	Use random sampling to draw inferences about a population.	
CCSS.Math.Content.7.SP.A.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	
		Inferences and Predictions
		Sampling Methods
CCSS.Math.Content.7.SP.B	Draw informal comparative inferences about two populations.	
CCSS.Math.Content.7.SP.B.4	Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.	
		Comparing Measures of Center and Variability

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.7.SP.C	Investigate chance processes and develop, use, and evaluate probability models.	
CCSS.Math.Content.7.SP.C.5	Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.	Understanding Probability
CCSS.Math.Content.7.SP.C.6	Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.	Experimental vs. Theoretical Probability
CCSS.Math.Content.7.SP.C.7	Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.	
CCSS.Math.Content.7.SP.C.7a	Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.	Experimental vs. Theoretical Probability
CCSS.Math.Content.7.SP.C.8	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.	
CCSS.Math.Content.7.SP.C.8a	Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.	Probability of Compound Events
CCSS.Math.Content.7.SP.C.8b	Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., ''rolling double sixes''), identify the outcomes in the sample space which compose the event.	Probability of Compound Events

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.8.	Grade 8	
CCSS.Math.Content.8.NS	The Number System	
CCSS.Math.Content.8.NS.A	Know that there are numbers that are not rational, and approximate them by rational numbers.	
CCSS.Math.Content.8.NS.A.1	Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.	
		Exploring Real Numbers
		Finding Distance in the Coordinate Plane
		Introduction to the Volume of a Cone
		Introduction to the Volume of a Sphere
CCSS.Math.Content.8.NS.A.2	Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). For example, by truncating the decimal expansion of √2, show that √2 is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.	
		Estimating and Comparing Square Roots
CCSS.Math.Content.8.EE	Expressions and Equations	
CCSS.Math.Content.8.EE.A	Work with radicals and integer exponents.	
CCSS.Math.Content.8.EE.A.1	Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.	
		Powers and Exponents
		Zero and Negative Exponents
CCSS.Math.Content.8.EE.A.2	Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that √2 is irrational.	
		Exploring the Pythagorean Theorem
		Finding the Hypotenuse in Right Triangles
		Introduction to the Volume of a Cone
		Introduction to the Volume of a Sphere
		Unknown Leg Lengths in Right Triangles

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.8.EE.A.3	Use numbers expressed in the form of a single digit times a whole-number power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3 times 10^8 and the population of the world as 7 times 10^9, and determine that the world population is more than 20 times larger.	Introduction to Scientific Notation
CCSS.Math.Content.8.EE.B	Understand the connections between proportional relationships, lines, and linear equations.	
CCSS.Math.Content.8.EE.B.5	Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.	Proportional Relationships
CCSS.Math.Content.8.EE.B.6	Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b.	Slope-Intercept Form
CCSS.Math.Content.8.EE.C	Analyze and solve linear equations and pairs of simultaneous linear equations.	
CCSS.Math.Content.8.EE.C.7	Solve linear equations in one variable.	
CCSS.Math.Content.8.EE.C.7b	Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.	Combining Like Terms to Solve Equations Using the Distributive Property
CCSS.Math.Content.8.F	Functions	
CCSS.Math.Content.8.F.A	Define, evaluate, and compare functions.	
CCSS.Math.Content.8.F.A.1	Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.	Constructing Linear Functions Introduction to Functions Slope-Intercept Form
CCSS.Math.Content.8.F.A.2	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.	Comparing Functions in the Real World

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.8.F.A.3	Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.	
		Constructing Linear Functions
		Slope-Intercept Form
CCSS.Math.Content.8.F.B	Use functions to model relationships between quantities.	
CCSS.Math.Content.8.F.B.4	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.	
		Exploring Slope
		Tables, Graphs, and Equations
CCSS.Math.Content.8.G	Geometry	
CCSS.Math.Content.8.G.A	Understand congruence and similarity using physical models, transparencies, or geometry software.	
CCSS.Math.Content.8.G.A.1	Verify experimentally the properties of rotations, reflections, and translations:	
CCSS.Math.Content.8.G.A.1a	Lines are taken to lines, and line segments to line segments of the same length.	
		Congruence and Transformations
CCSS.Math.Content.8.G.A.1b	Angles are taken to angles of the same measure.	
		Congruence and Transformations
CCSS.Math.Content.8.G.A.1c	Parallel lines are taken to parallel lines.	
		Congruence and Transformations
CCSS.Math.Content.8.G.A.2	Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.	
		Congruence and Transformations
CCSS.Math.Content.8.G.A.3	Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	
		Reflections
		Rotations in the Coordinate Plane
		Translations

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.8.G.A.5	Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.	Angle Relationships Parallel Lines Cut by a Transversal
CCSS.Math.Content.8.G.B	Understand and apply the Pythagorean Theorem.	
CCSS.Math.Content.8.G.B.6	Explain a proof of the Pythagorean Theorem and its converse.	Exploring the Pythagorean Theorem
CCSS.Math.Content.8.G.B.7	Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.	Finding the Hypotenuse in Right Triangles Unknown Leg Lengths in Right Triangles
CCSS.Math.Content.8.G.B.8	Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.	Finding Distance in the Coordinate Plane
CCSS.Math.Content.8.G.C	Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	
CCSS.Math.Content.8.G.C.9	Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.	Introduction to the Volume of a Cone Introduction to the Volume of a Sphere Surface Area and Volume of Cylinders
CCSS.Math.Content.8.SP	Statistics and Probability	
CCSS.Math.Content.8.SP.A	Investigate patterns of association in bivariate data.	
CCSS.Math.Content.8.SP.A.1	Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.	Constructing Scatterplots
CCSS.Math.Content.8.SP.A.2	Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.	Using Equations to Represent Trend Lines

Standard ID	Standard Text	Edgenuity Lesson Name
CCSS.Math.Content.8.SP.A.3	Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.	Using Equations to Represent Trend Lines
CCSS.Math.Content.HSS	Statistics & Probability, High School	
CCSS.Math.Content.HSS-CP	Conditional Probability and the Rules of Probability	
CCSS.Math.Content.HSS-CP.B	Use the rules of probability to compute probabilities of compound events in a uniform probability model.	
CCSS.Math.Content.HSS-CP.B.9	(+) Use permutations and combinations to compute probabilities of compound events and solve problems.	Combinations

Algebra II

Couse Overview and Syllabus

Course Number: MA3111

Grade Level: 10–12

Prerequisite Courses: Algebra I, Geometry

Credits: 1.0

Course Description

This course focuses on functions, polynomials, periodic phenomena, and collecting and analyzing data. Students begin with a review of linear and quadratic functions, to solidify a foundation for learning these new functions. Students will make connections between verbal, numeric, algebraic, and graphical representations of functions and apply this knowledge as they create equations and inequalities that can be used to model and solve mathematical and real-world problems. As students refine and expand their algebraic skills, they will draw analogies between the operations and field properties of real numbers and those of complex numbers and algebraic expressions. Process standards are embedded throughout the course, as students solve novel problems, reason abstractly, and think critically.

Course Objectives

Throughout the course, you will meet the following goals:

- Communicate effectively using graphic, numeric, symbolic, and verbal representations
- Compare and connect the structure of the polynomial system and the system of integers
- Use the coordinate plane to extend trigonometry to model periodic phenomena
- Synthesize and generalize what you have learned about a variety of function families
- Relate visual data displays and summary statistics to different types of data, including probability distributions

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Assignments	20%
Lesson Quizzes	30%
Unit Tests	30%
Cumulative Exams	20%
Additional	0%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Relationships Between Quantities
Unit 2: Quadratics and Complex Numbers
Unit 3: Polynomials
Unit 4: Rational Functions
Unit 5: Exponential and Logarithmic Functions
Unit 6: Statistics and Probability
Unit 7: Trigonometric Functions
Unit 8: Mathematical Modeling

Algebra I

Course Overview and Syllabus

Course Number: MA3109 IC

Grade level: 9

Prerequisite Courses: None

Credits: 1.0

Course Description

This full-year course focuses on five critical areas: relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, expressions and equations, and quadratic functions and modeling. This course builds on the foundation set in middle grades by deepening students' understanding of linear and exponential functions, and developing fluency in writing and solving one-variable equations and inequalities. Students will interpret, analyze, compare, and contrast functions that are represented numerically, tabularly, graphically, and algebraically. Quantitative reasoning is a common thread throughout the course as students learn how they can use algebra to represent quantities and the relationships among those quantities in a variety of ways. Standards of mathematical practice and process are embedded throughout the course, as students make sense of problem situations, solve novel problems, reason abstractly, and think critically.

Course Objectives

Throughout the course, you will meet the following goals:

- Apply quantitative reasoning in order to express relationships between quantities numerically, tabularly, graphically, and algebraically, understanding the limitations of each representation.
- Compare the key features of linear, exponential, and quadratic functions, and use these functions to model and solve problems.
- Use function notation as a way to describe a dependent relationship.
- Write and solve a variety of one- and two-variable equations and inequalities, and systems of one- and two-variable equations and inequalities, and interpret the solutions in context.
- Analyze visual data displays and summary statistics to draw conclusions about different types of data.

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course. Students are expected to spend approximately five to seven hours per week online on:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, e-mail, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Quiz	20%
Test	30%
Exam	20%
Assignment	20%
Projects (Performance Tasks)	10%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Representing Relationships
Unit 2: Linear Functions
Unit 3: Linear Equations and Inequalities
Unit 4: Exponential Functions
Unit 5: Polynomial Expressions
Unit 6: Quadratic Functions
Unit 7: Data Analysis Part I
Unit 8: Data Analysis Part 2

Geometry

Course Overview and Syllabus

Course Number: MA3110 IC

Grade level: 10

Prerequisite Courses: Algebra I

Credits: 1.0

Course Description

Based on plane Euclidean geometry, this rigorous full-year course addresses the critical areas of: congruence, proof, and constructions; similarity and trigonometry; circles; three-dimensional figures; and probability of compound events. Transformations and deductive reasoning are common threads throughout the course. Students build on their conceptual understanding of rigid transformations established in middle school as they formally define each and then, use them to prove theorems about lines, angles, and triangle congruency. Rigid transformations are also used to establish relationships between two-dimensional and three-dimensional figures. Students use their knowledge of proportional reasoning and dilations to develop a formal definition for similarity of figures. They apply their understanding of similarity to defining trigonometric ratios and radian measure. Students also make algebraic connections as they use coordinate algebra to verify properties of figures in the coordinate plane and write equations of parabolas and circles. Throughout the course, students investigate properties of figures, make conjectures, and prove theorems. Students demonstrate their reasoning by completing proofs in a variety of formats. The standards of mathematical practice are embedded throughout the course as students apply geometric concepts in modeling situations, make sense of problem situations, solve novel problems, reason abstractly, and think critically.

Course Objectives

Throughout the course, you will meet the following goals:

- Use transformations to understand and explain triangle congruence and similarity.
- Perform geometric constructions and justify them.
- Formalize reasoning by writing proofs in a variety of formats.
- Apply geometric concepts to model and solve real-world problems.
- Visualize the relationship between two-dimensional and three-dimensional figures.
- Apply probability concepts

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course. Students are expected to spend approximately five to seven hours per week online on:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, e-mail, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Quiz	20%
Test	30%
Exam	20%
Assignment	20%
Project	10%
Additional	0%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Foundations of Euclidean Geometry
Unit 2: Geometric Transformations
Unit 3: Angles and Lines
Unit 4: Triangles
Unit 5: Triangle Congruence
Unit 6: Similarity Transformations
Unit 7: Right Triangle Relationships and Trigonometry
Unit 8: Quadrilaterals and Coordinate Algebra
Unit 9: Circles
Unit 10: Conic Sections
Unit 11: Geometric Modeling in Two and Three Dimensions
Unit 12: Applications of Probability

Unit	Lesson	Lesson Objectives
Relationships Between Quantities		
	Linear Functions	
		Determine if a function is linear.
		Represent a linear relationship numerically, algebraically, and graphically.
	Inequalities	
		Create one-variable linear inequalities in one variable and use them to solve problems.
		Solve one-variable linear inequalities, including compound inequalities, and represent the solution sets graphically and algebraically.
	Word Problems	
		Create equations to solve a variety of word problems such as mixture, time-distance-rate, and work.
		Solve a variety of word problems, and interpret the solutions in context.
	Relations and Functions	
		Determine if a relation is a function.
		Determine if the function is one-to-one.
		Determine the domain and range of a relation.
		Evaluate function rules.
		Represent a relation in multiple ways, including equations, graphs, words, and tables of values.
	Function Operations	
		Combine functions using arithmetic operations, expressing the results both algebraically and graphically.
		Evaluate sums, differences, products, and quotients of functions.
	Composition of Functions	
		Evaluate the composition of functions.
		Find the domain of the composition of functions.
		Write an expression for the composition of functions.
	Symmetry	
		Determine the symmetry of a function algebraically.
		Determine the symmetry of a relation from a graph.
	Function Inverses	
		Find the inverse of a function.
		Use composition to verify that functions are inverses.
	Rate of Change	
		Calculate the average rate of change of a function over a specified interval.
		Interpret the average rate of change of a function over a specified interval.
		Solve problems involving direct variation.
	Performance Task: Going on a Round Trip	

Unit	Lesson	Lesson Objectives
Quadratics and Complex Numbers		
	Complex Numbers	
		Determine the absolute value of a complex number.
		Represent complex numbers in the form $a + bi$ or in the complex plane.
		Represent square roots of negative numbers as multiples of i.
		Simplify powers of i using their cyclic nature.
	Operations with Complex Numbers	
		Identify the field properties of complex numbers.
		Perform addition, subtraction, and multiplication of complex numbers.
	Completing the Square	
		Find complex solutions to quadratic equations by completing the square.
		Recognize the pattern of a perfect-square trinomial as the square of a binomial.
		Use the square root property to solve equations.
	The Quadratic Formula	
		Find real and complex solutions of quadratic equations using the quadratic formula.
		Use the discriminant to determine the number and type of roots of a quadratic equation.
	Transformations of Quadratic Functions	
		Describe the effects of changes in a, h, and k to the graph of a function in the form $y = a(x - h)^2 + k$.
		Use completing the square to write quadratic functions in the form $y = a(x - h)^2 + k$.
	Modeling with Quadratic Equations	
		Use quadratic equations to model and solve real-world problems.
	Square Root Functions	
		Find the domain of a square root function.
		Find the inverse of a quadratic function.
	Mixed Degree Systems	
		Determine the reasonableness of solutions to systems of a linear equation and a quadratic equation in two variables.
		Solve linear-quadratic systems of equations.
		Solve quadratic-quadratic systems of equations.
Polynomials		
	Division of Polynomials	
		Use inverse operations to check the result of polynomial division.
		Use long division to find quotients of polynomials.
	The Binomial Theorem	
		Use the Binomial theorem to expand binomials.
		Use the Binomial theorem to find a specific term in an expansion.

Unit	Lesson	Lesson Objectives
	Synthetic Division and the Remainder Theorem	
		Apply the remainder theorem.
		Use synthetic division to divide a polynomial by a linear factor.
	The Rational Roots Theorem	
		Determine the roots of and factor a polynomial function.
		Use the rational root theorem to determine possible roots of a polynomial function.
	The Fundamental Theorem of Algebra	
		Apply the fundamental theorem of algebra to determine the number of roots of a polynomial function.
		Use the complex conjugate theorem to factor and solve polynomial equations.
	Writing Polynomial Functions from Complex Roots	
		Write polynomial functions from complex roots.
	Quadratic in Form Polynomials	
		Identify fourth degree equations that are quadratic in form and use an appropriate u-substitution.
		Solve fourth degree equations that are quadratic in form.
	Graphing Polynomial Functions	
		Graph polynomial functions using key features.
	Graphs of Polynomial Functions	
		Describe the key features of a polynomial function.
		Identify the key features of a polynomial function from a given graph.
	Solving Polynomial Equations using Technology	
		Use technology to solve or approximate solutions of one-variable polynomial equations.
Rational Functions		
	Negative Exponents	
		Evaluate numeric expressions using laws of integer exponents.
		Simplify single-variable expressions using laws of integer exponents.
	Simplifying Rational Expressions	
		Simplify rational expressions using laws of integer exponents.
	Multiplying and Dividing Rational Expressions	
		Perform multiplication and division of rational expressions.
	Adding and Subtracting Rational Expressions	
		Perform addition and subtraction of rational expressions.
		Simplify complex rational expressions containing sums or differences.
	Rational Equations	
		Determine the reasonableness of a solution to a rational equation.
		Solve rational equations and determine extraneous solutions.
		Use rational equations to model and solve real-world problems.

Unit	Lesson	Lesson Objectives
	Vertical Asymptotes of Rational Functions	
		Determine the vertical asymptotes and holes in the graph of a rational function having the *x*-axis as its only horizontal asymptote.
		Solve problems involving inverse variation.
	Graphing Rational Functions	
		Determine the horizontal asymptotes of a rational function.
		Graph rational functions that have only vertical or horizontal asymptotes.
	Modeling with Rational Functions	
		Model and solve real-world problems using rational functions.
Radical Functions		
	Graphing Radical Functions	
		Determine the domain and range of square root and cube root functions.
		Relate transformations to the graphs of square root and cube root functions to their parent function.
	Simplifying Nonperfect Roots	
		Simplify nonperfect roots without rationalizing.
	Rational Exponents	
		Evaluate numeric expressions using properties of rational exponents.
		Simplify algebraic expressions using properties of rational exponents.
	Adding and Subtracting Radicals	
		Add and subtract radical expressions.
		Identify like radicals.
	Multiplying Radicals	
		Perform multiplication of radical expressions.
	Dividing Radicals	
		Perform division of radical expressions, rationalizing the denominator when necessary.
	Radical Equations and Extraneous Roots	
		Model and solve mathematical and real-world problems using radical equations, and determine extraneous roots.
	Performance Task: Roller Coaster Design	
		Solve one-variable radical inequalities.
		Write one-variable radical inequalities to model problems.
Exponential and Logarithmic Functions		
	Graphing Exponential Functions	
		Determine the domain and range of exponential functions.
		Graph exponential functions.
		Identify exponential functions.
	Solving Exponential Equations by Rewriting the Base	
		Solve exponential equations by rewriting bases.

Unit	Lesson	Lesson Objectives
	Graphing Logarithmic Functions	
		Determine the domain and range of logarithmic functions.
		Identify and analyze the graphs of logarithmic functions.
		Identify logarithmic functions.
	Evaluating Logarithmic Expressions	
		Evaluate common logarithms using a calculator.
		Evaluate logarithmic expressions by converting between logarithmic and exponential forms.
		Solve logarithmic equations by converting between logarithmic and exponential forms.
	Solving Logarithmic Equations using Technology	
		Rewrite logarithmic expressions using the change of base algorithm.
		Solve a one-variable equation containing logarithms by transforming it into a system of equations.
	Properties of Logarithms	
		Evaluate, expand, and simplify logarithmic expressions using properties of logarithms.
	Solving Equations using Properties of Logarithms	
		Apply properties of logarithms to solve logarithmic equations.
		Determine extraneous solutions of logarithmic equations.
	Base *e*	
		Analyze exponential and logarithmic functions in base e to determine key features of the graph.
		Apply properties of logarithms and exponents to solve exponential and logarithmic equations having base e.
		Determine the domain and range of exponential and logarithmic functions in base e.
	Solving Exponential and Logarithmic Equations	
		Solve exponential and logarithmic equations using inverses, properties, and algorithms.
	Modeling with Exponential and Logarithmic Equations	
		Model and solve real-world problems using exponential and logarithmic functions.
Statistics and Probability		
	Scatterplots	
		Determine the reasonableness of a model and the goodness of fit.
		Use linear models to approximate data sets and make predictions.
	Representing Data	
		Describe a data set using measures of central tendency and range.
		Determine if a representation of data is misleading.
	Standard Deviation	
		Calculate variance and standard deviation of a sample or population.
		Determine if a value is within a given z-score.
		Interpret standard deviation as it pertains to the spread of a graph.

Unit	Lesson	Lesson Objectives
	Properties of Probability Distributions	
		Create probability distributions from a data set.
		Identify properties of a probability distribution.
		Solve problems using probability distributions.
	Expected Value	
		Calculate expected values.
		Use expected values to make decisions.
	Binomial Distribution	
		Calculate binomial probabilities.
		Identify a binomial experiment.
		Identify the probability of success, probability of failure, and number of trials for a binomial experiment.
	Introduction to Normal Distributions	
		Apply the z-score formula to solve problems.
		Describe normal distributions using the mean and standard deviation.
		Solve problems using the empirical rule.
	Applications with Standard Normal Distribution	
		Solve problems using the standard normal table.
	Statistical Inferences	
		Make inferences about a population from a sample.
	Hypothesis Testing	
		Determine if a result is statistically significant.
		Perform hypothesis tests on normally distributed data.
Trigonometric Functions		
	Radian Measure	
		Convert between degree and radian measure.
		Use the definition of radian measure to calculate arc lengths, radii, and angle measures.
	Right Triangle Trigonometry	
		Use special right triangle relationships to solve right triangles.
		Use the Pythagorean theorem, and the trigonometric functions and their inverses to solve right triangles.
	The Unit Circle	
		Compare sine, cosine, and tangent values for angles having the same reference angle.
		Find the sine, cosine, and tangent values of angle measures using the unit circle.
	Reciprocal Trigonometric Functions	
		Evaluate the six trigonometric functions for special angles.
		Simplify expressions involving the six trigonometric functions using reciprocal relationships.
		Solve right triangle trigonometry problems involving reciprocal trigonometric functions.

Unit	Lesson	Lesson Objectives
	Evaluating the Six Trigonometric Functions	
		Evaluate the six trigonometric functions for angles in degrees or radians based on one or more given trigonometric function values.
		Evaluate the six trigonometric functions for angles in degrees or radians given a point on the terminal ray.
	Graphing Sine and Cosine	
		Analyze key features of sine and cosine functions from equations and graphs.
	Changes in Period and Phase Shift of Sine and Cosine Functions	
		Relate transformations of the graphs of the sine and cosine functions to the equation.
	Graphing Cosecant and Secant Functions	
		Analyze key features of secant and cosecant functions from equations and graphs.
	Graphing Tangent and Cotangent	
		Analyze key features of tangent and cotangent functions from equations and graphs.
	Modeling with Periodic Functions	
		Model and solve real-world problems using periodic functions.
Mathematical Modeling		
	Solving 3 × 3 Linear Systems	
		Classify systems of three-variable equations as dependent, independent, consistent, or inconsistent.
		Solve 3 × 3 linear systems algebraically.
	Modeling with Linear Systems	
		Model and solve real-world problems using systems of linear equations and inequalities.
	Piecewise Defined Functions	
		Determine the domain, range, and continuity of piecewise defined functions.
		Evaluate piecewise defined functions.
		Graph piecewise defined functions.
	Transformations of Functions	
		Analyze a function rule or graph to determine transformations of the parent function.
		Identify a function as belonging to a family of functions.
	Comparing Characteristics of Functions	
		Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).
		Determine the similarities and differences in characteristics of multiple functions graphically.
		Determine the similarities and differences in characteristics of multiple functions symbolically.
		Determine the similarities and differences in characteristics of multiple functions tabularly.
	Modeling with Functions	
		Find the equation of a function that best models a data set.
		Use function models to solve problems.

Standard ID	Standard Text	Edgenuity Lesson Name
PA.CC.2.2.HS.	Algebraic Concepts	
CC.2.2.HS.C.	Functions	
CC.2.2.HS.C.1.	Use the concept and notation of functions to interpret and apply them in terms of their context.	
		Introduction to Functions
		Function Notation
		Solving for Angle Measures of Right Triangles
CC.2.2.HS.C.9.	Prove the Pythagorean identity and use it to calculate trigonometric ratios.	
		Evaluating the Six Trigonometric Functions
PA.CC.2.3.HS.	Geometry	
CC.2.3.HS.A.	Geometry	
CC.2.3.HS.A.1.	Use geometric figures and their properties to represent transformations in the plane.	
		Introduction to Transformations
		Reflections
		Translations
		Rotations
		Compositions
		Symmetry
		Dilations
CC.2.3.HS.A.2.	Apply rigid transformations to determine and explain congruence.	
		Congruent Figures
		Triangle Congruence: SAS
		Triangle Congruence: ASA and AAS
		Triangle Congruence: SSS and HL
CC.2.3.HS.A.3.	Verify and apply geometric theorems as they relate to geometric figures.	
		Euclidean Geometry
		Defining Terms
		Measuring Length and Angles
		Introduction to Proof
		Linear Pairs and Vertical Angles
		Complementary and Supplementary Angles
		Parallel and Perpendicular Lines
		Lines Cut by a Transversal
		Proving Lines Parallel
		Triangle Angle Theorems

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.3.HS.A.3.	Verify and apply geometric theorems as they relate to geometric figures. *(Cont'd.)*	Triangles and Their Side Lengths Isosceles Triangles Centroid and Orthocenter Triangle Congruence: SAS Triangle Congruence: ASA and AAS Triangle Congruence: SSS and HL Using Triangle Congruence Theorems Performance Task: Congruency Proofs Using Triangle Similarity Theorems Triangle Classification Theorems Special Right Triangles Parallelograms Proving a Quadrilateral Is a Parallelogram Special Parallelograms Trapezoids and Kites Angle Measures of Polygons
CC.2.3.HS.A.4.	Apply the concept of congruence to create geometric constructions.	Performance Task: Constructions Parallel and Perpendicular Lines Incenter and Circumcenter Performance Task: Circle Constructions
CC.2.3.HS.A.5.	Create justifications based on transformations to establish similarity of plane figures.	Similar Figures Triangle Similarity: AA Triangle Similarity: SSS and SAS
CC.2.3.HS.A.6.	Verify and apply theorems involving similarity as they relate to plane figures.	Triangle Similarity: AA Triangle Similarity: SSS and SAS Using Triangle Similarity Theorems Right Triangle Similarity

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.3.HS.A.7.	Apply trigonometric ratios to solve problems involving right triangles.	The Unit Circle Reciprocal Trigonometric Functions Trigonometric Ratios Solving for Side Lengths of Right Triangles Solving for Angle Measures of Right Triangles
CC.2.3.HS.A.8.	Apply geometric theorems to verify properties of circles.	Introduction to Circles Central Angles Inscribed Angles Secants, Tangents, and Angles Special Segments Angle Relationships Performance Task: Circle Constructions
CC.2.3.HS.A.9.	Extend the concept of similarity to determine arc lengths and areas of sectors of circles.	Circumference and Arc Length Area of a Circle and a Sector
CC.2.3.HS.A.10.	Translate between the geometric description and the equation for a conic section.	Equation of a Circle Parabolas Equations of Ellipses Equations of Hyperbolas
CC.2.3.HS.A.11.	Apply coordinate geometry to prove simple geometric theorems algebraically.	Slopes of Parallel and Perpendicular Lines Directed Line Segments and Modeling Figures in the Coordinate Plane Equation of a Circle Parabolas
CC.2.3.HS.A.12.	Explain volume formulas and use them to solve problems.	Volume of Prisms Volume of Pyramids Volume of Cylinders, Cones, and Spheres
CC.2.3.HS.A.13.	Analyze relationships between two-dimensional and three-dimensional objects.	Three-Dimensional Figures and Cross Sections

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.3.HS.A.14.	Apply geometric concepts to model and solve real world problems.	
		Triangle Inequalities
		Classifying Quadrilaterals
		Area of Triangles and Parallelograms
		Perimeter and Area of Rhombi, Trapezoids, and Kites
		Area of Regular Polygons
		Area of Composite Figures
		Density and Design Problems
		Volume of Prisms
		Volume of Pyramids
		Volume of Cylinders, Cones, and Spheres
PA.CC.2.4.HS.	Measurement, Data, and Probability	
CC.2.4.HS.B.	Statistics and Probability	
CC.2.4.HS.B.6.	Use the concepts of independence and conditional probability to interpret data.	
		Sets and Venn Diagrams
		Finding Outcomes
		Theoretical and Experimental Probability
		Independent and Mutually Exclusive Events
		Conditional Probability
		Probability and Two-Way Tables
		Performance Task: Applying Probability Concepts
CC.2.4.HS.B.7.	Apply the rules of probability to compute probabilities of compound events in a uniform probability	
		Independent and Mutually Exclusive Events
		Conditional Probability
		Probability and Two-Way Tables
		Performance Task: Applying Probability Concepts

Standard ID	Standard Text	Edgenuity Lesson Name
CC.HS.	Mathematics - High School	
CC.2.1.HS.	Numbers and Operations	
CC.2.1.HS.F.	Number and Quantity	
CC.2.1.HS.F.1.	Apply and extend the properties of exponents to solve problems with rational exponents.	Exponential Functions with Radical Bases
CC.2.1.HS.F.2.	Apply properties of rational and irrational numbers to solve real world or mathematical problems.	Exponential Functions with Radical Bases
CC.2.1.HS.F.3.	Apply quantitative reasoning to choose and interpret units and scales in formulas, graphs, and data displays.	Dimensional Analysis Performance Task: Tablet Time Quantitative Reasoning
CC.2.1.HS.F.4.	Use units as a way to understand problems and to guide the solution of multi-step problems.	Dimensional Analysis Performance Task: Tablet Time Quantitative Reasoning
CC.2.1.HS.F.5.	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.	Dimensional Analysis
CC.2.2.HS.	Algebraic Concepts	
CC.2.2.HS.C.	Functions	
CC.2.2.HS.C.1.	Use the concept and notation of functions to interpret and apply them in terms of their context.	Evaluating Functions Function Notation Introduction to Functions Introduction to Linear Functions
CC.2.2.HS.C.2.	Graph and analyze functions and use their properties to make connections between the different representations.	Exponential Decay Functions Exponential Growth Functions Introduction to Linear Functions Introduction to Quadratic Functions Point-Slope Form of a Line Quadratic Functions: Factored Form Quadratic Functions: Standard Form Quadratic Functions: Vertex Form Reflections of Exponential Functions Slope of a Line

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.2.HS.C.2.	Graph and analyze functions and use their properties to make connections between the different representations.	
	(Cont'd)	Slope-Intercept Form of a Line Special Linear Relationships Translations of Exponential Functions Vertical Stretches and Shrinks of Exponential Functions Writing and Graphing Equations in Two Variables
CC.2.2.HS.C.3.	Write functions or sequences that model relationships between two quantities.	
		Exponential Decay Functions Exponential Growth Functions Geometric Sequences Modeling with Quadratic Functions Point-Slope Form of a Line Recognizing Patterns Slope-Intercept Form of a Line Special Linear Relationships Vertical Stretches and Shrinks of Exponential Functions Writing Linear Equations
CC.2.2.HS.C.4.	Interpret the effects transformations have on functions and find the inverses of functions.	
		Completing the Square Completing the Square (Continued) Evaluating Functions Quadratic Functions: Vertex Form Reflections of Exponential Functions Slope-Intercept Form of a Line Translations of Exponential Functions Vertical Stretches and Shrinks of Exponential Functions
CC.2.2.HS.C.5.	Construct and compare linear, quadratic, and exponential models to solve problems.	
		Comparing Exponential, Linear, and Quadratic Growth Introduction to Linear Functions Slope-Intercept Form of a Line

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.2.HS.C.6.	Interpret functions in terms of the situations they model.	Introduction to Linear Functions Modeling with Quadratic Equations Modeling with Quadratic Functions Slope of a Line Vertical Stretches and Shrinks of Exponential Functions
CC.2.2.HS.D.	Algebra	
CC.2.2.HS.D.1.	Interpret the structure of expressions to represent a quantity in terms of its context.	Factoring Polynomials: GCF
CC.2.2.HS.D.2.	Write expressions in equivalent forms to solve problems.	Factoring Polynomials Completely Factoring Polynomials: Difference of Squares Factoring Polynomials: Double Grouping Factoring Trinomials: $a = 1$ Factoring Trinomials: $a > 1$
CC.2.2.HS.D.3.	Extend the knowledge of arithmetic operations and apply to polynomials.	Adding and Subtracting Polynomials Introduction to Polynomials Multiplying Monomials and Binomials Multiplying Polynomials and Simplifying Expressions
CC.2.2.HS.D.5.	Use polynomial identities to solve problems.	Factoring Polynomials: Difference of Squares
CC.2.2.HS.D.6.	Extend the knowledge of rational functions to rewrite in equivalent forms.	
CC.2.2.HS.D.7.	Create and graph equations or inequalities to describe numbers or relationships.	Exponential Decay Functions Exponential Growth Functions Modeling with Quadratic Equations Modeling with Quadratic Functions Performance Task: Tablet Time Point-Slope Form of a Line Slope-Intercept Form of a Line Solving Linear Equations: Distributive Property Solving Linear Equations: Variable on One Side

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.2.HS.D.7.	Create and graph equations or inequalities to describe numbers or relationships. *(Cont'd)*	Solving Linear Equations: Variables on Both Sides Solving Mixture Problems Solving One-Variable Inequalities Special Linear Relationships Writing and Graphing Equations in Two Variables Writing and Solving Equations in Two Variables Writing Linear Equations
CC.2.2.HS.D.9.	Use reasoning to solve equations and justify the solution method.	Introduction to the Quadratic Formula Literal Equations Performance Task: Tablet Time Solving Linear Equations: Distributive Property Solving Linear Equations: Variable on One Side Solving Linear Equations: Variables on Both Sides Solving Mixture Problems Solving Quadratic Equations: Completing the Square Solving Quadratic Equations: Completing the Square (Continued) Solving Quadratic Equations: Factoring Writing and Solving Equations in Two Variables Writing and Solving Equations in Two Variables Writing and Solving Equations in Two Variables Writing and Solving Equations in Two Variables

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.2.HS.D.10.	Represent, solve, and interpret equations/inequalities and systems of equations/inequalities algebraically and graphically.	Graphing Two-Variable Linear Inequalities Introduction to the Quadratic Formula Modeling with Quadratic Equations Modeling with Systems of Linear Equations Modeling with Systems of Linear Inequalities Modeling with Two-Variable Linear Inequalities Performance Task: Tablet Time Solving Linear Equations: Distributive Property Solving Linear Equations: Variable on One Side Solving Linear Equations: Variables on Both Sides Solving Mixture Problems Solving One-Variable Inequalities Solving Quadratic Equations: Completing the Square Solving Quadratic Equations: Completing the Square (Continued) Solving Quadratic Equations: Factoring Solving Quadratic Equations: Quadratic Formula Solving Quadratic Equations: Square Root Property Solving Quadratic Equations: Zero Product Property Solving Systems of Linear Equations: Graphing Solving Systems of Linear Equations: Linear Combinations Solving Systems of Linear Equations: Substitution Solving Systems of Linear Inequalities Solving Systems: Introduction to Linear Combinations

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.4.HS.	Measurement, Data, and Probability	
CC.2.4.HS.B.	Statistics and Probability	
CC.2.4.HS.B.1.	Summarize, represent, and interpret data on a single count or measurement variable.	
		Box Plots Describing Data Measures of Center Standard Deviation
CC.2.4.HS.B.2.	Summarize, represent, and interpret data on two categorical and quantitative variables.	
		Analyzing Residuals Line of Best Fit Performance Task: Super Survey Simulator Regression Models Relative Frequencies and Association Strength of Correlation Two-Way Tables
CC.2.4.HS.B.3.	Analyze linear models to make interpretations based on the data.	
		Line of Best Fit Performance Task: Super Survey Simulator Regression Models
CC.2.4.HS.B.4.	Recognize and evaluate random processes underlying statistical experiments.	
CC.2.4.HS.B.5.	Make inferences and justify conclusions based on sample surveys, experiments, and observational studies.	
		Designing a Study
CC.2.4.HS.B.7.	Apply the rules of probability to compute probabilities of compound events in a uniform probability model.	
		Compound Events and the Fundamental Counting Principle

Unit	Lesson	Lesson Objectives
Representing Relationships		
	Quantitative Reasoning	
		Describe a quantitative relationship shown in a table or graph, including graphs without scales.
		Interpret a graph given with or without a scale to determine the quantitative relationship it describes.
	Dimensional Analysis	
		Use dimensional analysis to convert units and compare quantities, attending to limitations on the unit of measurement.
	Writing and Solving Equations in Two Variables	
		Determine a two-variable linear equation that represents a scenario, identifying constraints on the variables in terms of the context.
		Solve for an unknown quantity in a two-variable linear equation, given one of the values.
	Writing and Graphing Equations in Two Variables	
		Construct a table of values and a graph for a two-variable linear equation that models a situation, pointing out solutions that are viable or not viable based on the context.
		Interpret graphs and rates by examining the quantities represented by each axis.
		Write a two-variable linear equation to model a quantitative relationship, describing the constraints of the model based on the context.
	Performance Task: Tablet Time	
	Introduction to Functions	
		Analyze a mapping diagram, table, graph, or scenario to recognize functional relationships.
		Determine the domain and range of a functional relationship given in a mapping diagram, table, graph, or scenario.
	Function Notation	
		Identify the input and output of a functional relationship, pointing out constraints on the domain and range.
		Interpret function notation that models a real-world situation.
		Use function notation to represent a functional relationship.
	Evaluating Functions	
		Analyze a function represented by an equation, table, or graph to determine the output when given the input, and vice versa.
		Find input and output values of two functions graphed in the same coordinate plane.
		Write the inverse of a given linear function.
	Recognizing Patterns	
		Analyze a sequence of numbers to determine the pattern, and identify whether it is arithmetic or geometric.
		Use a recursive rule to calculate a term of a sequence.
		Write a recursive rule for a sequence.
Linear Functions		
	Introduction to Linear Functions	
		Calculate the rate of change of a function and, if constant, the initial value of the function.
		Determine if a relationship is linear by analyzing the rate of change.

Unit	Lesson	Lesson Objectives
	Slope of a Line	
		Determine the slope of a line from a graph, table of values, or ordered pairs.
		Identify if the slope of a linear relationship is zero, positive, negative, or undefined.
		Interpret slope in the context of real-world scenarios.
	Slope-Intercept Form of a Line	
		Analyze how a change in a parameter of a linear function affects its graph or the scenario it represents.
		Identify the slope and *y*-intercept of a linear function, and use them to graph the function.
		Write a linear function, in slope-intercept form, for a given relationship.
	Point-Slope Form of a Line	
		Graph a line given its equation in point-slope form, identifying the slope and intercepts.
		Write the equation of a line given its slope and a point on the line in point-slope form, and express the relationship as a function.
	Writing Linear Equations	
		Use linear models to solve problems.
		Write two-variable linear equations in different forms using varying pieces of information about the relationships.
	Special Linear Relationships	
		Determine if a relationship is a direct variation.
		Find the constant of variation in a direct variation.
		Write an equation for a direct variation.
		Write recursive and explicit rules for arithmetic sequences using function notation.
Linear Equations and Inequalities		
	Solving Linear Equations: Variable on One Side	
		Create one-variable linear equations, having the variable on one side only, to model and solve problems.
		Determine the input value that produces the same output value for two functions from a table or graph.
		Explain the steps used to solve a one-variable linear equation having the variable on one side only.
		Solve one-variable linear equations having the variable on one side only, pointing out solutions that are viable or not viable in a modeling context.
	Solving Linear Equations: Variables on Both Sides	
		Create one-variable linear equations, having the variable on both sides, to model and solve problems.
		Explain the steps used to solve a one-variable linear equation having the variable on both sides.
		Solve one-variable linear equations having the variable on both sides using tables, graphs, or algebra, pointing out solutions that are viable or not viable in a modeling context.
	Solving Linear Equations: Distributive Property	
		Create one-variable linear equations involving the distributive property to model and solve problems.
		Determine if a one-variable linear equation has zero, one, or infinite solutions.
		Solve one-variable linear equations involving the distributive property.

Unit	Lesson	Lesson Objectives
	Solving Mixture Problems	
		Use a table to organize information given in mixture problems.
		Write and solve one-variable linear equations to model and solve mixture problems.
	Literal Equations	
		Rearrange a literal equation to highlight a quantity of interest and use it to solve problems.
	Solving One-Variable Inequalities	
		Explain the steps used to solve a multistep one-variable linear inequality.
		Graph the solution sets of one-variable linear inequalities.
		Solve multistep one-variable linear inequalities.
Systems of Equations and Inequalities		
	Solving Systems of Linear Equations: Graphing	
		Analyze a system of linear equations to determine if it has one solution, no solution, or infinitely many solutions.
		Use technology to find or approximate the solution of a system of linear equations graphically.
	Solving Systems of Linear Equations: Substitution	
		Interpret the solution of a system of linear equations in a modeling context.
		Solve a system of linear equations using substitution.
	Solving Systems: Introduction to Linear Combinations	
		Interpret the solution of a system of linear equations in a modeling context.
		Solve systems of linear equations using linear combinations, limiting the systems to those that do not require multiples of both equations.
		Verify that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.
	Solving Systems of Linear Equations: Linear Combinations	
		Interpret the solution of a system of linear equations in a modeling context.
		Solve a system of linear equations using linear combinations.
	Modeling with Systems of Linear Equations	
		Create a system of linear equations to model a problem.
		Interpret the solution of a system of linear equations in a modeling context.
	Graphing Two-Variable Linear Inequalities	
		Relate the graph of a two-variable linear inequality to its algebraic representation.
	Modeling with Two-Variable Linear Inequalities	
		Create a two-variable linear inequality to model a problem.
		Graph the solutions to a two-variable linear inequality.
		Interpret the solutions of a two-variable linear inequality in a modeling context.

Unit	Lesson	Lesson Objectives
	Solving Systems of Linear Inequalities	
		Determine a system of two-variable linear inequalities given a solution set.
		Graph a system of two-variable linear inequalities.
		Identify solutions of a system of two-variable linear inequalities.
	Modeling with Systems of Linear Inequalities	
		Create a system of two-variable linear inequalities to model a problem.
		Graph the solutions to a system of two-variable linear inequalities.
		Interpret the solutions to a system of two-variable linear inequalities in a modeling context.
Exponential Functions		
	Exponential Growth Functions	
		Graph an exponential growth function, and state the domain and range.
		Identify an exponential growth function given tables, graphs, and function rules, determining the rate of change.
		State the domain and range of an exponential growth function.
		Write an exponential growth function to model a real-world problem, pointing out constraints in the modeling context.
	Exponential Decay Functions	
		Graph an exponential decay function, and state the domain and range.
		Identify an exponential decay function given tables, graphs, and function rules, determining the rate of change.
		Relate exponential growth and decay functions using laws of exponents and reflections over the y-axis.
		Write an exponential decay function to model a real-world problem, pointing out constraints in the modeling context.
	Vertical Stretches and Shrinks of Exponential Functions	
		Determine the parameters and create an equation for a vertically dilated exponential growth or decay function given a table, equation, or scenario.
		Graph a vertically dilated exponential growth or decay function given a table, equation, or scenario.
	Reflections of Exponential Functions	
		Analyze key aspects of exponential functions that have been reflected across an axis.
		Graph reflections of exponential functions.
	Translations of Exponential Functions	
		Analyze key aspects of exponential functions that have been translated.
		Graph translations of exponential functions.
	Exponential Functions with Radical Bases	
		Determine the key aspects of an exponential function having a radical base by rewriting it using the properties of exponents.
		Simplify and evaluate exponential expressions having whole number bases and fractional exponents.
		Transform expressions in radical form to exponential form and vice versa.
	Geometric Sequences	
		Graph and analyze geometric sequences as a special case of exponential functions with the domain restricted to natural numbers.
		Write recursive and explicit rules for geometric sequences using function notation.

Unit	Lesson	Lesson Objectives
Polynomial Expressions		
	Introduction to Polynomials	
		Classify a polynomial by degree and number of terms.
		Identify a polynomial and its equivalent forms.
	Adding and Subtracting Polynomials	
		Add and subtract polynomials, determining the degree and number of terms of the sum or difference.
		Find and evaluate polynomial sums or differences that model real-world situations.
	Multiplying Monomials and Binomials	
		Identify a product that results in the difference of squares or a perfect square trinomial.
		Multiply a binomial by a monomial or binomial algebraically and by using geometric models.
	Multiplying Polynomials and Simplifying Expressions	
		Interpret the structure of an expression involving addition, subtraction, and multiplication of polynomials in order to write it as a single polynomial in standard form.
		Multiply a binomial by a trinomial algebraically and by using geometric models.
	Factoring Polynomials: GCF	
		Determine an appropriate way to factor a polynomial for a given context.
		Determine the greatest common monomial factor of two or more terms.
		Write a polynomial as the product of a monomial and polynomial having the same number of terms.
	Factoring Polynomials: Double Grouping	
		Factor a polynomial by double grouping or indicate that the polynomial is prime.
	Factoring Trinomials: $a = 1$	
		Determine if a trinomial with a leading coefficient of 1 and a positive constant is factorable and, if so, write it in factored form.
		Relate the factorization of a trinomial with a leading coefficient of 1 and a positive constant to a geometric model.
	Factoring Trinomials: $a > 1$	
		Determine if a trinomial with a leading coefficient greater than 1 is factorable and, if so, write it in factored form.
		Relate the factorization of a trinomial with a leading coefficient greater than 1 to a geometric model.
	Factoring Polynomials: Difference of Squares	
		Determine if a polynomial is factorable by recognizing that it is a difference of two squares and, if so, applying the identity.
		Identify a monomial that is a perfect square and find the square root.
	Factoring Polynomials Completely	
		Analyze the structure of a polynomial to write it in completely factored form.
Quadratic Functions		
	Introduction to Quadratic Functions	
		Calculate the rate of change of a quadratic function over an interval of its domain, and compare it to linear and exponential functions.
		Evaluate a quadratic function using tables, graphs, and equations.
		Identify a quadratic function and the values of the coefficients and constant from the standard form.

Unit	Lesson	Lesson Objectives
	Quadratic Functions: Standard Form	
		Graph a quadratic function given in standard form, identifying the key features of the graph.
	Quadratic Functions: Factored Form	
		Graph a quadratic function given in factored form, identifying the key features of the graph.
	Quadratic Functions: Vertex Form	
		Graph a quadratic function given in vertex form, identifying the key features of the graph.
		Relate the parameters of a quadratic function in vertex form to transformations of the graph $y = x^2$.
	Completing the Square	
		Determine key aspects of the graph of a quadratic function given in standard form and with $a = 1$ by writing it in vertex form.
		Relate the geometric model of completing the square to the algebraic process.
		Relate the parameters of a quadratic function in vertex form to transformations of the graph $y = x^2$.
		Write quadratic functions given in standard form and with $a = 1$ into vertex form by completing the square.
	Completing the Square (Continued)	
		Determine key aspects of the graph of a quadratic function given in standard form by writing it in vertex form.
		Relate the parameters of a quadratic function in vertex form to transformations of the graph $y = x^2$.
		Write quadratic functions given in standard form into vertex form by completing the square.
	Modeling with Quadratic Functions	
		Solve equations arising from questions asked about functions that model real-world applications, including linear functions graphically.
		Solve equations arising from questions asked about functions that model real-world applications, including linear functions tabularly.
		Solve equations arising from questions asked about functions that model real-world applications, including quadratic functions graphically.
		Solve equations arising from questions asked about functions that model real-world applications, including quadratic functions tabularly.
		Use quadratic functions to solve mathematical and real-world problems.
		Write quadratic functions to model problems.
	Comparing Exponential, Linear, and Quadratic Growth	
		Use tables and graphs to compare the growth of an exponential function to the growth of a linear function over equal intervals.
		Use tables and graphs to compare the growth of an exponential function to the growth of a quadratic or a polynomial function over equal intervals.
		Use tables and graphs to show that exponential functions grow by equal factors over equal intervals.
Quadratic Equations		
	Solving Quadratic Equations: Zero Product Property	
		Solve problems by factoring quadratic equations given in standard form.
		Write quadratic equations given rational solutions.
	Solving Quadratic Equations: Factoring	
		Solve problems by rewriting quadratic equations in standard form and factoring, pointing out the solutions that are viable or not viable in a modeling context.
		Write a quadratic equation that models a scenario.
	Solving Quadratic Equations: Square Root Property	
		Use the square root property to solve quadratic equations.

Unit	Lesson	Lesson Objectives
	Solving Quadratic Equations: Completing the Square	
		Solve a quadratic equation whose leading coefficient is 1 by completing the square.
	Solving Quadratic Equations: Completing the Square (Continued)	
		Solve a quadratic equation whose leading coefficient is greater than 1 by completing the square.
	Introduction to the Quadratic Formula	
		Determine the values of a, b, and c from a given quadratic equation in standard form.
		Justify the steps used to derive the quadratic formula by completing the square.
		Recognize an expression that uses the quadratic formula to find the solutions of a quadratic equation.
		Relate the discriminant in the quadratic formula to the types of solutions of a quadratic equation.
	Solving Quadratic Equations: Quadratic Formula	
		Determine the number of real zeros of a quadratic function by finding the values of a, b, and c, and then calculating the discriminant.
		Solve a quadratic equation using the quadratic formula.
	Modeling with Quadratic Equations	
		Write and solve quadratic equations to model real-world scenarios, estimating where appropriate and identifying solutions that are not viable in terms of the context.
Data Analysis: Part One		
	Describing Data	
		Determine if a sample fairly represents the population as a whole or if there is bias.
		Identify various data collection methods and analyze various displays of data.
		Informally describe the shape, center, and variability of a distribution based on a dot plot, histogram, or box plot.
	Designing a Study	
		Analyze study types and sampling methods.
		Classify sampling methods.
		Classify study types.
		Determine if a sample is biased.
	Two-Way Tables	
		Calculate relative frequencies and display them in a two-way relative frequency table.
		Display data in a two-way frequency table given a scenario or Venn diagram, and identify joint and marginal frequencies.
		Interpret joint and marginal relative frequencies in the context of the data.
	Relative Frequencies and Association	
		Create conditional relative frequency tables, by row and by column.
		Determine whether there is an association between two variables by analyzing conditional relative frequencies.
		Interpret conditional relative frequencies in the context of the data.

Unit	Lesson	Lesson Objectives
	Measures of Center	
		Calculate the mean and median for a set of data using technology when appropriate.
		Compare the mean and median of a set of data that is symmetrical and for a set of data that is not symmetrical, determining which is a better measure of center for a given data set.
		Create a dot plot or histogram for a set of data.
		Discuss the effect of outliers on measures of center.
	Box Plots	
		Analyze box plots for symmetry and outliers.
		Compare box plots.
		Create and interpret box plots.
	Standard Deviation	
		Analyze a normal distribution curve to determine statistical measures.
		Analyze histograms for skewness and symmetry.
		Calculate variance and standard deviation for a given data set.
Data Analysis: Part Two		
	Line of Best Fit	
		Determine if a data set shows a correlation and, if so, the type of correlation.
		Determine if a given linear function is a reasonable model for a set of data arising from a real-world situation.
		Use a line of best fit to make a prediction.
		Use technology to determine the line of best fit for a data set, and interpret the parameters of the model in context.
	Analyzing Residuals	
		Analyze the residual plot to determine whether the function is an appropriate fit for a linear model.
		Compute the residuals for a set of data and a line of best fit.
		Determine the residual plot for a given scatterplot and line of best fit.
	Strength of Correlation	
		Analyze data to draw conclusions about correlation and causation.
		Calculate the correlation coefficient for a linear model using technology.
		Interpret the strength of a linear model based on the correlation coefficient.
	Regression Models	
		Determine an exponential, quadratic, or linear model for a given data set using technology.
		Identify limitations of models in real-world contexts.
		Interpret the graph of a regression model in the context of the problem.
		Use a linear, quadratic, or exponential regression model to make a prediction.
	Performance Task: Super Survey Simulator	
	Compound Events and the Fundamental Counting Principle	
		Use the fundamental counting principle to determine the number of possible outcomes.
		Use the fundamental counting principle to determine the probability of compound events.

Standard ID	Standard Text	Edgenuity Lesson Name
CC.HS.	Mathematics - High School	
CC.2.1.HS.	Numbers and Operations	
CC.2.1.HS.F.	Number and Quantity	
CC.2.1.HS.F.1.	Apply and extend the properties of exponents to solve problems with rational exponents.	
		Adding and Subtracting Radicals Dividing Radicals Multiplying Radicals Performance Task: Roller Coaster Design Radical Equations and Extraneous Roots Rational Exponents Simplifying Nonperfect Roots
CC.2.1.HS.F.6.	Extend the knowledge of arithmetic operations and apply to complex numbers.	
		Complex Numbers Operations with Complex Numbers
CC.2.1.HS.F.7.	Apply concepts of complex numbers in polynomial identities and quadratic equations to solve problems.	
		Completing the Square Operations with Complex Numbers The Quadratic Formula Writing Polynomial Functions from Complex Roots
CC.2.2.HS.	Algebraic Concepts	
CC.2.2.HS.C.	Functions	
CC.2.2.HS.C.1.	Use the concept and notation of functions to interpret and apply them in terms of their context.	
		Composition of Functions Function Operations Modeling with Rational Functions Relations and Functions
CC.2.2.HS.C.2.	Graph and analyze functions and use their properties to make connections between the different representations.	
		Graphing Exponential Functions Graphing Logarithmic Functions Graphing Polynomial Functions Graphing Radical Functions Graphing Rational Functions Piecewise Defined Functions Rate of Change

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.2.HS.C.2.	Graph and analyze functions and use their properties to make connections between the different representations.	
	(Cont'd)	Square Root Functions Transformations of Functions Transformations of Quadratic Functions Vertical Asymptotes of Rational Functions
CC.2.2.HS.C.3.	Write functions or sequences that model relationships between two quantities.	
		Modeling with Exponential and Logarithmic Equations Modeling with Functions Modeling with Periodic Functions Modeling with Rational Functions
CC.2.2.HS.C.4.	Interpret the effects transformations have on functions and find the inverses of functions.	
		Changes in Period and Phase Shift of Sine and Cosine Functions Function Inverses Graphing Cosecant and Secant Functions Graphing Exponential Functions Graphing Logarithmic Functions Graphing Rational Functions Graphing Tangent and Cotangent Graphs of Polynomial Functions Square Root Functions Symmetry Transformations of Functions Transformations of Quadratic Functions
CC.2.2.HS.C.5.	Construct and compare linear, quadratic, and exponential models to solve problems.	
		Comparing Characteristics of Functions Linear Functions Modeling with Exponential and Logarithmic Equations Modeling with Quadratic Equations
CC.2.2.HS.C.6.	Interpret functions in terms of the situations they model.	
		Graphs of Polynomial Functions Linear Functions

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.2.HS.C.6.	Interpret functions in terms of the situations they model. *(Cont'd)*	Modeling with Exponential and Logarithmic Equations Modeling with Functions Modeling with Periodic Functions Modeling with Rational Functions Rate of Change
CC.2.2.HS.C.7.	Apply radian measure of an angle and the unit circle to analyze the trigonometric functions.	Changes in Period and Phase Shift of Sine and Cosine Functions Evaluating the Six Trigonometric Functions Graphing Cosecant and Secant Functions Graphing Sine and Cosine Graphing Tangent and Cotangent Modeling with Periodic Functions Radian Measure Reciprocal Trigonometric Functions Right Triangle Trigonometry The Unit Circle
CC.2.2.HS.C.8.	Choose trigonometric functions to model periodic phenomena and describe the properties of the graphs.	Modeling with Periodic Functions
CC.2.2.HS.C.9.	Prove the Pythagorean identity and use it to calculate trigonometric ratios.	Evaluating the Six Trigonometric Functions
CC.2.2.HS.D.	Algebra	
CC.2.2.HS.D.1.	Interpret the structure of expressions to represent a quantity in terms of its context.	Evaluating Logarithmic Expressions Modeling with Quadratic Equations Performance Task: Going on a Round Trip Word Problems
CC.2.2.HS.D.2.	Write expressions in equivalent forms to solve problems.	Base *e* Evaluating Logarithmic Expressions Properties of Logarithms Quadratic in Form Polynomials

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.2.HS.D.3.	Extend the knowledge of arithmetic operations and apply to polynomials.	Division of Polynomials Synthetic Division and the Remainder Theorem
CC.2.2.HS.D.4.	Understand the relationship between zeros and factors of polynomials to make generalizations about functions and their graphs.	Graphing Polynomial Functions Solving Polynomial Equations using Technology The Fundamental Theorem of Algebra The Rational Roots Theorem
CC.2.2.HS.D.5.	Use polynomial identities to solve problems.	Operations with Complex Numbers The Binomial Theorem The Fundamental Theorem of Algebra
CC.2.2.HS.D.6.	Extend the knowledge of rational functions to rewrite in equivalent forms.	Adding and Subtracting Rational Expressions Multiplying and Dividing Rational Expressions Negative Exponents Simplifying Rational Expressions
CC.2.2.HS.D.7.	Create and graph equations or inequalities to describe numbers or relationships.	Inequalities Linear Functions Modeling with Exponential and Logarithmic Equations Modeling with Linear Systems Modeling with Quadratic Equations Modeling with Rational Functions Performance Task: Going on a Round Trip Performance Task: Roller Coaster Design Vertical Asymptotes of Rational Functions Word Problems

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.2.HS.D.8.	Apply inverse operations to solve equations or formulas for a given variable.	Radical Equations and Extraneous Roots Rational Equations Solving Exponential and Logarithmic Equations
CC.2.2.HS.D.9.	Use reasoning to solve equations and justify the solution method.	Modeling with Quadratic Equations Performance Task: Going on a Round Trip Solving 3 × 3 Linear Systems Solving Equations using Properties of Logarithms Solving Exponential and Logarithmic Equations
CC.2.2.HS.D.10.	Represent, solve, and interpret equations/inequalities and systems of equations/inequalities algebraically and graphically.	Completing the Square Inequalities Linear Functions Mixed Degree Systems Modeling with Exponential and Logarithmic Equations Modeling with Linear Systems Modeling with Quadratic Equations Performance Task: Going on a Round Trip Performance Task: Roller Coaster Design Radical Equations and Extraneous Roots Rational Equations Solving 3 × 3 Linear Systems Solving Equations using Properties of Logarithms Solving Exponential and Logarithmic Equations Solving Exponential Equations by Rewriting the Base Solving Logarithmic Equations using Technology

Standard ID	Standard Text	Edgenuity Lesson Name
CC.2.2.HS.D.10.	Represent, solve, and interpret equations/inequalities and systems of equations/inequalities algebraically and graphically.	
	(Cont'd)	Solving Polynomial Equations using Technology
		The Quadratic Formula
CC.2.4.HS.	Measurement, Data, and Probability	
CC.2.4.HS.B.	Statistics and Probability	
CC.2.4.HS.B.1.	Summarize, represent, and interpret data on a single count or measurement variable.	
		Applications with Standard Normal Distribution
		Introduction to Normal Distributions
		Representing Data
		Standard Deviation
CC.2.4.HS.B.2.	Summarize, represent, and interpret data on two categorical and quantitative variables.	
		Scatterplots
CC.2.4.HS.B.3.	Analyze linear models to make interpretations based on the data.	
		Modeling with Functions
		Scatterplots
CC.2.4.HS.B.4.	Recognize and evaluate random processes underlying statistical experiments.	
		Statistical Inferences
CC.2.4.HS.B.5.	Make inferences and justify conclusions based on sample surveys, experiments, and observational studies.	
		Hypothesis Testing
		Statistical Inferences
CC.2.4.HS.B.6.	Use the concepts of independence and conditional probability to interpret data.	
CC.2.4.HS.B.7.	Apply the rules of probability to compute probabilities of compound events in a uniform probability model.	
		Binomial Distribution
		Expected Value
		Properties of Probability Distributions

Unit	Lesson	Lesson Objectives
Foundations of Euclidean Geometry		
	Introduction to Functions	
		Analyze a mapping diagram, table, graph, or scenario to recognize functional relationships.
		Determine the domain and range of a functional relationship given in a mapping diagram, table, graph, or scenario.
	Function Notation	
		Identify the input and output of a functional relationship, pointing out constraints on the domain and range.
		Interpret function notation that models a real-world situation.
		Use function notation to represent a functional relationship.
	Euclidean Geometry	
		Analyze descriptions and diagrams that illustrate basic postulates about points, lines, and planes.
		Identify and name undefined terms of point, line, plane, and distance along a line.
	Defining Terms	
		Identify and name a pair of parallel lines, a pair of perpendicular lines, a ray, an angle, an arc, a circle, and a line segment.
		Use undefined terms to precisely define parallel lines, perpendicular lines, ray, angle, arc, circle, and line segment.
	Measuring Length and Angles	
		Apply the protractor postulate and angle addition postulate to calculate angle measures.
		Apply the ruler postulate and segment addition postulate to calculate the lengths of line segments.
		Identify a midpoint or bisector of a line segment or angles.
	Introduction to Proof	
		Complete the steps to prove algebraic and geometric statements.
		Identify proof formats, the essential parts of a proof, and the assumptions that can be made from a given drawing.
	Linear Pairs and Vertical Angles	
		Identify linear pairs and vertical angles from given diagrams.
		Calculate angle measures by using definitions and theorems about linear pairs and vertical angles.
		Complete the steps to prove statements using linear pairs and vertical angles.
	Complementary and Supplementary Angles	
		Complete the steps to prove statements using complementary angles and supplementary angles.
		Identify complementary angles and supplementary angles from given diagrams.
		Solve problems involving measures of complementary and supplementary angles.
	Performance Task: Constructions	
Geometric Transformations		
	Introduction to Transformations	
		Identify the type of transformation given a pre-image and an image.
		Determine if a transformation is isometric and identify corresponding parts of the pre-image and image.

Unit	Lesson	Lesson Objectives
	Reflections	
		Describe the properties of and write rules for reflections.
		Determine the image or pre-image of a figure after a given reflection.
		Develop the definition of a reflection using constructions.
	Translations	
		Determine the image or pre-image of a figure after a given translation.
		Develop the definition of a translation using constructions.
		Write the rule that describes a given translation.
	Rotations	
		Describe the properties of and write rules for rotations.
		Determine the image or pre-image of a figure after a given rotation.
		Develop the definition of a rotation using constructions.
	Compositions	
		Determine the image of a figure after a given composition of transformations.
		Determine the rule that describes a given composition of transformations.
	Symmetry	
		Identify reflectional symmetry in geometric figures and the number of lines of symmetry.
		Identify rotational symmetry and its order in geometric figures.
Angles and Lines		
	Parallel and Perpendicular Lines	
		Construct parallel and perpendicular lines.
		Identify parallel, perpendicular, and skew lines from three-dimensional figures.
		Solve problems involving the distance from a point on the perpendicular bisector to both endpoints of the line segment.
	Lines Cut by a Transversal	
		Complete the steps to prove angle relationships given parallel lines cut by a transversal.
		Solve for angle measures when parallel lines are cut by a transversal.
	Proving Lines Parallel	
		Apply theorems to determine if lines are parallel.
		Prove lines are parallel given angle relationships.
	Slopes of Parallel and Perpendicular Lines	
		Complete the steps to prove the slope criteria for parallel and perpendicular lines using coordinate geometry.
		Determine if two lines are parallel or perpendicular.
		Use slope criteria to find additional points on a line parallel or perpendicular to a given line.

Unit	Lesson	Lesson Objectives
Triangles		
	Triangle Angle Theorems	
		Calculate the measures of interior and exterior angles of a triangle.
		Complete the steps to prove that the sum of the measures of the interior angles of a triangle is 180 degrees.
		Identify and relate the interior and exterior angles of a triangle.
	Triangles and Their Side Lengths	
		Analyze the relationships between the angles of acute, right, and obtuse triangles.
		Construct or justify the construction of isosceles and equilateral triangles.
		Determine if three given segments will satisfy the triangle inequality.
		Determine the length or parameters for a third side of a triangle given the other two sides.
	Triangle Inequalities	
		Identify angle and side relationships between two triangles.
		Identify angle and side relationships in a triangle.
		Solve real world problems involving relationships between angle measures and side lengths of one or two triangles.
	Isosceles Triangles	
		Complete the steps to prove the isosceles triangle theorem and its converse.
		Identify characteristics of an isosceles triangle.
		Solve for unknown measures of isosceles triangles.
	Centroid and Orthocenter	
		Complete the steps to prove that the medians of a triangle meet at a point.
		Identify the characteristics of the centroid or orthocenter of a triangle.
		Solve for unknown measures created by medians in a triangle.
	Incenter and Circumcenter	
		Construct inscribed and circumscribed circles of a triangle.
		Identify the characteristics of the incenter or circumcenter of a triangle.
		Solve for unknown measures created by perpendicular or angle bisectors in a triangle.
Triangle Congruence		
	Congruent Figures	
		Determine if figures are congruent and, if so, identify their corresponding parts.
		Determine unknown measures of congruent figures.
		Write congruency statements for transformed figures.

Unit	Lesson	Lesson Objectives
	Triangle Congruence: SAS	
		Complete the steps to prove triangles are congruent using SAS.
		Determine the isometric transformations that would map one triangle onto another triangle given that two corresponding sides and the included angle are congruent.
		Identify the sides and angle that can be used to prove triangle congruency using SAS.
	Triangle Congruence: ASA and AAS	
		Complete the steps to prove triangles are congruent using ASA or AAS.
		Determine the isometric transformations that would map one triangle onto another triangle given that two pairs of corresponding angles and one pair of corresponding sides are congruent.
		Identify the side and angles that can be used to prove triangle congruency using ASA or AAS.
	Triangle Congruence: SSS and HL	
		Complete the steps to prove triangles are congruent using SSS or HL.
		Determine the isometric transformations that would map one triangle onto another triangle given that three corresponding sides are congruent.
		Identify the parts that can be used to prove triangle congruency using SSS or HL.
	Using Triangle Congruence Theorems	
		Complete the steps to prove angles, segments, and triangles are congruent using triangle congruence theorems and CPCTC.
		Identify the triangle congruency theorem that can be used to prove two triangles congruent.
	Performance Task: Congruency Proofs	
Similarity Transformations		
	Dilations	
		Calculate and interpret the scale factor for dilations of figures.
		Determine the unknown measures of an image or pre-image of a dilated figure given the scale factor.
		Verify experimentally the properties of dilations given a center and a scale factor.
	Similar Figures	
		Determine if two polygons are similar using dilations.
		Find the coordinates of the vertices of an image or pre-image of a dilated polygon given the scale factor.
		Verify the properties of dilations, including the scale factor and slopes of corresponding line segments.
	Triangle Similarity: AA	
		Complete the steps to prove triangles are similar using the AA similarity theorem.
		Identify the composition of similarity transformations in a mapping of two triangles.
	Triangle Similarity: SSS and SAS	
		Complete the steps to prove triangles are similar using SAS similarity theorem.
		Complete the steps to prove triangles are similar using SSS similarity theorem.
		Identify the sides and angle that can be used to prove triangle similarity using SSS similarity theorem and SAS similarity theorem.

Unit	Lesson	Lesson Objectives
	Using Triangle Similarity Theorems	
		Complete the steps to prove theorems involving similar triangles.
		Solve for unknown measures of similar triangles using the side-splitter theorem and its converse.
		Solve for unknown measures of similar triangles using the triangle midsegment theorem.
	Right Triangle Similarity	
		Apply the Pythagorean theorem to find side lengths of a right triangle.
		Apply theorems to solve problems involving geometric means.
		Complete the steps to prove the Pythagorean theorem using similar triangles.
		Identify similar right triangles formed by an altitude and write a similarity statement.
	Directed Line Segments and Modeling	
		Find the coordinates of a point on a directed line segment that partitions the segment into a given ratio.
		Model and solve real-world problems involving directed line segments.
Right Triangle Relationships and Trigonometry		
	Triangle Classification Theorems	
		Apply the converse of the Pythagorean theorem and triangle inequality theorems to solve problems.
		Classify a triangle using the converse of the Pythagorean theorem and triangle inequality theorems.
		Determine an unknown side length or range of side lengths of a triangle given its classification.
	Special Right Triangles	
		Complete the steps to prove special right triangle theorems.
		Determine unknown measures of 30°-60°-90° triangles.
		Determine unknown measures of 45°-45°-90° triangles.
		Solve real-world problems involving special right triangles.
	Trigonometric Ratios	
		Given an acute angle of a right triangle, label the hypotenuse, opposite, and adjacent sides.
		Given an acute angle of a right triangle, write ratios for sine, cosine, and tangent.
		Relate trigonometric ratios of similar triangles and the acute angles of a right triangle.
	Solving for Side Lengths of Right Triangles	
		Apply trigonometric ratios to solve real-world problems.
		Solve for unknown side lengths of right triangles using trigonometric ratios.
		Write equations using trigonometric ratios that can be used to solve for unknown side lengths of right triangles.
	Solving for Angle Measures of Right Triangles	
		Apply inverse trigonometric functions to solve real-world problems.
		Solve for unknown angles of right triangles using inverse trigonometric functions.
		Write equations that can be used to solve for unknown angles in right triangles.

Unit	Lesson	Lesson Objectives
	The Unit Circle	
		Compare sine, cosine, and tangent values for angles having the same reference angle.
		Find the sine, cosine, and tangent values of angle measures using the unit circle.
	Reciprocal Trigonometric Functions	
		Evaluate the six trigonometric functions for special angles.
		Simplify expressions involving the six trigonometric functions using reciprocal relationships.
		Solve right triangle trigonometry problems involving reciprocal trigonometric functions.
	Evaluating the Six Trigonometric Functions	
		Evaluate the six trigonometric functions for angles in degrees or radians based on one or more given trigonometric function values.
		Evaluate the six trigonometric functions for angles in degrees or radians given a point on the terminal ray.
Quadrilaterals and Coordinate Algebra		
	Classifying Quadrilaterals	
		Classify and describe relationships within the family of quadrilaterals.
		Describe real-world objects using characteristics of quadrilaterals.
		Solve mathematical problems using characteristics of quadrilaterals.
		Solve real-world problems using characteristics of quadrilaterals.
	Parallelograms	
		Apply properties of parallelograms to solve problems.
		Complete the steps to prove theorems about properties of parallelograms.
	Proving a Quadrilateral Is a Parallelogram	
		Analyze a figure to determine if it is a parallelogram.
		Apply properties of parallelograms to solve for unknown values.
		Complete the steps to prove that a quadrilateral is a parallelogram.
	Special Parallelograms	
		Apply properties of rectangles to solve mathematical and real-world problems.
		Apply properties of rhombi to solve mathematical and real-world problems.
		Apply properties of squares to solve mathematical and real-world problems.
		Complete the steps to prove theorems about properties of parallelograms.
	Trapezoids and Kites	
		Apply properties of kites to solve mathematical and real-world problems.
		Apply properties of trapezoids to solve mathematical and real-world problems.
		Complete proofs involving properties of trapezoids and kites.

Unit	Lesson	Lesson Objectives
	Figures in the Coordinate Plane	
		Apply coordinate algebra proofs to triangles and quadrilaterals.
		Calculate the perimeter of a triangle or quadrilateral given the coordinates of the vertices.
Circles		
	Introduction to Circles	
		Calculate the degree measure of an arc using the arc addition postulate.
		Complete the steps to prove that all circles are similar.
		Identify and describe terms related to circles.
	Central Angles	
		Determine the measures of central angles, chords, and arcs using theorems about angle, chord, and arc congruency.
		Identify congruent central angles, chords, and arcs.
		Solve problems using the radius tangent theorem and its converse.
	Inscribed Angles	
		Apply theorems about inscribed angles and angles formed by a tangent and a chord.
		Complete the steps to prove theorems involving inscribed angles and their intercepted arcs.
	Secants, Tangents, and Angles	
		Solve problems involving angles formed by a secant and a tangent that intersect outside a circle.
		Solve problems involving angles formed by two intersecting chords.
		Solve problems involving angles formed by two intersecting tangents.
		Solve problems involving angles formed by two secants that intersect outside a circle.
	Special Segments	
		Solve problems involving segments formed by a secant and a tangent which intersect outside a circle.
		Solve problems involving segments formed by two intersecting chords.
		Solve problems involving segments formed by two intersecting tangents.
		Solve problems involving segments formed by two secants which intersect outside a circle.
	Circumference and Arc Length	
		Determine the radian measure of a central angle.
		Solve problems involving arc length with central angles measured in degrees.
		Solve problems involving arc length with central angles measured in radians.
		Solve problems involving circumference of a circle.
	Area of a Circle and a Sector	
		Solve problems involving area of a circle.
		Solve problems involving area of a sector with central angles measured in degrees.
		Solve problems involving area of a sector with central angles measured in radians.

Unit	Lesson	Lesson Objectives
	Angle Relationships	
		Determine segment lengths, angle measures, and arc measures using definitions and theorems relating to circles.
	Performance Task: Circle Constructions	
Conic Sections		
	Equation of a Circle	
		Determine if a given point lies on a circle.
		Determine the equation of a circle.
		Identify the center and radius from the equation of a circle, including equations given in general form.
	Parabolas	
		Describe key features of a parabola.
		Determine the equation of a parabola given the focus and directrix.
	Equations of Ellipses	
		Identify the center, foci, directrix, and vertices of an ellipse from an equation or graph.
		Write the equation of an ellipse from a given graph or information about its center, foci, directrix, or vertices.
	Equations of Hyperbolas	
		Determine the foci, directrices, vertices, and asymptotes of a hyperbola with center at the origin from an equation or graph.
		Graph a hyperbola with center at the origin from a given equation.
		Write the equation of a hyperbola with center at the origin from a given graph or information about its foci, directrices, or vertices.
Geometric Modeling in Two and Three Dimensions		
	Area of Triangles and Parallelograms	
		Solve problems involving areas of triangles and parallelograms.
	Perimeter and Area of Rhombi, Trapezoids, and Kites	
		Calculate the perimeter of a rhombus, trapezoid, or kite given the coordinates of the vertices.
		Solve problems involving the area of a rhombus, trapezoid, and kite given the coordinates of the vertices.
		Solve problems involving the area of a rhombus, trapezoid, and kite.
	Angle Measures of Polygons	
		Apply the polygon exterior angle sum theorem to solve problems.
		Apply the polygon interior angle sum theorem to solve problems.
		Identify and describe polygons.
	Area of Regular Polygons	
		Calculate the area of a regular polygon.
		Calculate the length of the apothem of a regular polygon.
		Solve real-world problems involving the area of regular polygons.

Unit	Lesson	Lesson Objectives
	Area of Composite Figures	
		Calculate the area of composite 2-D figures, including real-world applications.
		Decompose composite 2-D figures.
		Write an expression that represents the area of a composite 2-D figure.
	Density and Design Problems	
		Solve problems involving density of an area.
		Use geometric concepts to solve design problems.
	Three-Dimensional Figures and Cross Sections	
		Classify a 3-D figure and identify the characteristics (base, edge, etc.).
		Determine the 3-D figure generated by a rotation of a 2-D figure.
		Determine the horizontal and vertical cross-sections of 3-D figures.
	Volume of Prisms	
		Calculate the volume or an unknown measure of a right prism based on a mathematical or real-world model.
		Calculate the volume or an unknown measure of an oblique prism based on a mathematical or real-world model.
		Write expressions to represent the volumes or unknown measures of right and oblique prisms.
	Volume of Pyramids	
		Calculate the volume or an unknown measure of a right pyramid based on a mathematical or real-world model.
		Calculate the volume or an unknown measure of an oblique pyramid based on a mathematical or real-world model.
		Write expressions to represent the volumes or unknown measures of right and oblique pyramids.
	Volume of Cylinders, Cones, and Spheres	
		Solve mathematical and real-world problems involving the volume of right and oblique cones.
		Solve mathematical and real-world problems involving the volume of right and oblique cylinders.
		Solve mathematical and real-world problems involving the volume of spheres.
		Write expressions to represent the volumes or unknown measures of cylinders and cones.
Applications of Probability		
	Sets and Venn Diagrams	
		Identify and represent elements of sets and subsets, including the empty and universal sets.
		Represent and interpret the union and intersection of sets using set notation and Venn diagrams.
	Finding Outcomes	
		Evaluate expressions involving factorials.
		Identify possible outcomes for an event.
		Solve combination problems including finding a subset of the total number of possible combinations.
		Solve permutation problems including finding a subset of the total number of possible permutations.

Unit	Lesson	Lesson Objectives
	Theoretical and Experimental Probability	
		Calculate theoretical and experimental probability.
		Identify the sample space of an experiment and the complement of an event.
	Independent and Mutually Exclusive Events	
		Calculate probabilities using the addition rule.
		Calculate probabilities using the multiplication rule of independent events.
		Identify mutually exclusive and independent events.
	Conditional Probability	
		Calculate conditional probabilities using formulas and Venn diagrams.
		Calculate probabilities of compound events.
		Use calculations to determine if two events are independent.
	Probability and Two-Way Tables	
		Compute conditional probabilities from data displayed in a two-way table.
		Construct a two-way table.
		Use a two-way table to determine if two events are independent.
	Performance Task: Applying Probability Concepts	

Unit	Lesson	Lesson Objectives
Polynomial Functions		
	Division of Polynomials	
		Use inverse operations to check the result of polynomial division.
		Use long division to find quotients of polynomials.
	The Binomial Theorem	
		Use the Binomial theorem to expand binomials.
		Use the Binomial theorem to find a specific term in an expansion.
	Synthetic Division and the Remainder Theorem	
		Apply the remainder theorem.
		Use synthetic division to divide a polynomial by a linear factor.
	The Rational Roots Theorem	
		Determine the roots of and factor a polynomial function.
		Use the rational root theorem to determine possible roots of a polynomial function.
	The Fundamental Theorem of Algebra	
		Apply the fundamental theorem of algebra to determine the number of roots of a polynomial function.
		Use the complex conjugate theorem to factor and solve polynomial equations.
	Writing Polynomial Functions from Complex Roots	
		Write polynomial functions from complex roots.
	Graphing Polynomial Functions	
		Graph polynomial functions using key features.
	Graphs of Polynomial Functions	
		Describe the key features of a polynomial function.
		Identify the key features of a polynomial function from a given graph.
Rational Functions		
	Multiplying and Dividing Rational Expressions	
		Perform multiplication and division of rational expressions.
	Adding and Subtracting Rational Expressions	
		Perform addition and subtraction of rational expressions.
		Simplify complex rational expressions containing sums or differences.
	Rational Equations	
		Determine the reasonableness of a solution to a rational equation.
		Solve rational equations and determine extraneous solutions.
		Use rational equations to model and solve real-world problems.
	Vertical Asymptotes of Rational Functions	
		Determine the vertical asymptotes and holes in the graph of a rational function having the x-axis as its only horizontal asymptote.
		Solve problems involving inverse variation.

Unit	Lesson	Lesson Objectives
	Graphing Rational Functions	
		Determine the horizontal asymptotes of a rational function.
		Graph rational functions that have only vertical or horizontal asymptotes.
	Graphs of Rational Functions	
		Analyze key features of a rational function.
		Graph a rational function.
		Use algebraic techniques to determine key features of a rational function.
	Modeling with Rational Functions	
		Model and solve real-world problems using rational functions.
	Partial Fractions	
		Find the partial fraction decomposition of a rational expression.
		Write a rational expression as a sum of fractions that can be used to find the partial decomposition.
Functions and Modeling		
	Functions and Transformations	
		Describe the effect of one or more transformations on the graph of a function.
		Graph a transformation of a function.
		Recognize even and odd functions.
		Write the equation of a transformed function given its graph.
	Comparing Characteristics of Functions	
		Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).
		Determine the similarities and differences in characteristics of multiple functions graphically.
		Determine the similarities and differences in characteristics of multiple functions symbolically.
		Determine the similarities and differences in characteristics of multiple functions tabularly.
	Composition of Functions and Modeling	
		Identify the functions that make up a composite function.
		Justify why function composition is not commutative.
		Use a composition of two functions to model and solve a real-world problem.
	Comparing a Function and Its Inverse	
		Compare and contrast characteristics of a function and its inverse.
		Verify two functions are inverses of each other using graphs or tables.
	Inverse of a Function	
		Determine the additive or multiplicative inverse of a function or its characteristics.
		Determine values of an inverse function from a table or graph.
		Find the inverse of a function, restricting the domain when necessary.
		Verify that functions are inverses.

Unit	Lesson	Lesson Objectives
	Base *e*	
		Analyze exponential and logarithmic functions in base e to determine key features of the graph.
		Apply properties of logarithms and exponents to solve exponential and logarithmic equations having base e.
		Determine the domain and range of exponential and logarithmic functions in base e.
	Solving Exponential and Logarithmic Equations	
		Solve exponential and logarithmic equations using inverses, properties, and algorithms.
	Modeling with Exponential and Logarithmic Equations	
		Model and solve real-world problems using exponential and logarithmic functions.
Trigonometric Functions		
	Angles and Trigonometric Functions	
		Convert between radian and degree measure.
		Evaluate trigonometric functions.
		Use the unit circle to explain key features of the sine and cosine functions.
		Use trigonometric functions to solve problems.
	Graphing Sine and Cosine Functions	
		Describe the result of a stretch, compression, or reflection over the x-axis on the sine or cosine function.
		Graph a stretch, compression, or reflection over the x-axis of the sine or cosine function.
		Graph the sine or cosine function, attending to units on the horizontal axis.
		Interpret key features of a sine or cosine function that models a real-world context.
	General Form of Sine and Cosine	
		Create an appropriate periodic function to model a real-world context.
		Describe the result of a vertical or horizontal shift on the sine or cosine function.
		Graph a vertical or horizontal shift of the sine or cosine function.
		Interpret key features of a sine or cosine function that models a real-world context.
	Graphing Cosecant and Secant Functions	
		Analyze key features of secant and cosecant functions from equations and graphs.
	Graphing Tangent and Cotangent	
		Analyze key features of tangent and cotangent functions from equations and graphs.
	Inverse Trigonometric Functions	
		Determine the key features of an inverse trigonometric function.
		Evaluate expressions containing inverse trigonometric functions.
		Graph an inverse trigonometric function.
		Use inverse functions to solve trigonometric equations that model real-world scenarios.
	Performance Task: Modeling with Sinusoidal Functions	

Unit	Lesson	Lesson Objectives
Analytic Trigonometry		
	Trigonometric Difference Identities	
		Prove the trigonometric subtraction identities for sine, cosine, or tangent.
		Solve a trigonometric equation involving a subtraction identity for sine, cosine, or tangent.
		Use a trigonometric subtraction identity for sine, cosine, or tangent to find the exact trigonometric value of an angle.
		Use a trigonometric subtraction identity for sine, cosine, or tangent to simplify an expression or verify an identity.
	Trigonometric Sum Identities	
		Prove the trigonometric addition identity for sine, cosine, or tangent.
		Solve a trigonometric equation involving an addition identity for sine, cosine, or tangent.
		Use a trigonometric addition identity for sine, cosine, or tangent to find the exact trigonometric value of an angle.
		Use a trigonometric addition identity for sine, cosine, or tangent to simplify an expression or verify an identity.
	Trigonometric Double Angle Identities	
		Prove the trigonometric double angle identities for sine, cosine, or tangent.
		Solve a trigonometric equation involving a double angle identity for sine, cosine, or tangent.
		Use a trigonometric double angle identity for sine, cosine, or tangent to find the exact trigonometric value of an angle.
		Use a trigonometric double angle identity for sine, cosine, or tangent to simplify an expression or verify an identity.
	Trigonometric Half Angle Identities	
		Prove the trigonometric half-angle identity for sine, cosine, or tangent.
		Solve a trigonometric equation involving a half-angle identity for sine, cosine, or tangent.
		Use a trigonometric half-angle identity for sine, cosine, or tangent to find the exact trigonometric value of an angle.
		Use a trigonometric half-angle identity for sine, cosine, or tangent to simplify an expression or verify an identity.
	Solving Trigonometric Equations	
		Analyze key features of inverse trigonometric functions from equations and graphs.
		Evaluate inverse trigonometric functions over a specified domain.
		Solve trigonometric equations over a specified domain.
	Performance Task: Trigonometric Identities	
Complex Numbers and Polar Coordinates		
	Performing Operations with Complex Numbers	
		Identify the field properties of complex numbers.
		Perform addition, subtraction, multiplication, and division of complex numbers.
	Distance and Midpoints in the Complex Plane	
		Calculate the modulus of a complex number.
		Solve problems involving distances and midpoints in the complex plane.
		Use the average to find the midpoint of a segment in the complex plane.
		Use the modulus to find the distance between any two complex numbers in the plane.

Unit	Lesson	Lesson Objectives
	Polar Form of Complex Numbers	
		Convert between the rectangular and polar form of a complex number, or between rectangular and polar coordinates.
		Explain why the rectangular and polar forms of a given complex number represent the same number.
		Find conjugates, moduli, and arguments of complex numbers.
		Graph points in the complex or polar plane given polar coordinates or the rectangular or polar form of a complex number.
	Graphing Polar Equations	
		Convert between polar and rectangular equations.
		Graph or describe the graph of a polar equation.
		Solve a problem involving one or more polar equations.
		Use a polar equation to represent a real-world scenario or interpret parts of a polar equation in terms of a context.
	Add and Subtract Complex Numbers	
		Find a sum or difference of complex numbers.
		Identify a geometric representation for the sum or difference of complex numbers.
	Multiply and Divide Complex Numbers	
		Find a product or quotient of complex numbers.
		Identify a geometric representation for the product or quotient of complex numbers.
	Powers and Roots of Complex Numbers	
		Find roots of complex numbers.
		Prove de Moivre's theorem.
		Use de Moivre's theorem to calculate a power of a complex number.
Vectors and Matrices		
	Vectors and Their Components	
		Compute the result of multiplying a vector by a scalar.
		Determine the direction, magnitude, or components of a vector.
		Use multiplication of a vector by a scalar to model or solve a problem.
	Vector Addition and Subtraction	
		Add vectors geometrically or algebraically.
		Calculate the result of performing two or more of the following operations on vectors: addition, subtraction, scalar multiplication.
		Subtract vectors geometrically or algebraically.
	Applying Vectors in the Plane	
		Solve a real-world problem involving vector quantities.
		Use vectors to model a real-world problem.
		Write a trigonometric equation that models a real-world problem involving vectors.

Unit	Lesson	Lesson Objectives
	Dot Product and Work	
		Calculate the dot product of two vectors.
		Interpret the dot product of two vectors.
		Use the dot product to calculate the angle between two vectors.
		Use the dot product to solve work problems.
	Solving Matrix Equations	
		Solve matrix equations by taking the inverse of a matrix.
		Solve matrix equations using operations with matrices.
	Cramer's Rule	
		Solve a system of equations using Cramer's rule.
	Matrices and Row Operations	
		Perform row operations in matrices.
		Solve a linear system using reduced row echelon form.
	Modeling with Matrices	
		Model and solve real-world problems using matrices.
	Vector Multiplication Using Matrices	
		Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector.
		Solve problems involving transformations of vectors using matrices.
Analytic Geometry		
	Conic Sections	
		Graph or determine key features (center, radius, vertex, directrix, focus) of a circle or parabola from a given equation.
		Identify the conic formed when a plane intersects a double napped cone.
		Write the equation of a circle or parabola given a graph or verbal description.
	Equations of Ellipses	
		Identify the center, foci, directrix, and vertices of an ellipse from an equation or graph.
		Write the equation of an ellipse from a given graph or information about its center, foci, directrix, or vertices.
	Equations of Hyperbolas	
		Determine the foci, directrices, vertices, and asymptotes of a hyperbola with center at the origin from an equation or graph.
		Graph a hyperbola with center at the origin from a given equation.
		Write the equation of a hyperbola with center at the origin from a given graph or information about its foci, directrices, or vertices.
	Equations of Hyperbolas (continued)	
		Determine the center, foci, directrices, vertices, and asymptotes of a hyperbola from an equation or graph.
		Write the equation of a hyperbola from a given graph or information about its center, foci, directrices, or vertices.

Unit	Lesson	Lesson Objectives
	The General Equation of Conic Sections	
		Complete the square to write the equation of a conic section in standard form.
		Determine the type of conic from the general form of a given equation.
		Graph, or describe the graph of, a conic from a given equation in general form.
	Applications of Conics	
		Interpret the constants or coefficients in the equation of a quadratic relation in terms of a context.
		Use a quadratic relation to model a problem.
		Use a quadratic relation to solve a problem.
	Graphing Parametric Equations	
		Convert between parametric equations and rectangular relations.
		Describe a planar curve given in parametric form.
		Graph parametric equations.
		Use parametric equations to model problems.
		Use parametric equations to solve problems.
	Performance Task: Graphing Conic Sections	
Sequences and Series		
	Arithmetic Sequences	
		Apply the formula of an arithmetic sequence.
		Determine if a sequence is arithmetic.
		Find the common difference of an arithmetic sequence.
		Find the terms of an arithmetic sequence.
	Geometric Sequences	
		Apply the formula of a geometric sequence.
		Determine if a sequence is geometric.
		Find terms of a geometric sequence.
		Find the common ratio of a geometric sequence.
	Arithmetic Series	
		Solve problems using the formula for the sum for an arithmetic series.
	Finite Geometric Series	
		Solve problems using the formula for the sum of a finite geometric series.
	Infinite Geometric Series	
		Determine if an infinite geometric series converges.
		Evaluate the sum of an infinite geometric series.
		Find a partial sum of an infinite geometric series.

Unit	Lesson	Lesson Objectives
Limits		
	The Difference Quotient	
		Use the difference quotient to calculate an average rate of change.
		Write and simplify a difference quotient for a function.
	Understanding the Concept of a Limit	
		Determine if a limit exists at a point and if so, its value.
		Estimate limits from graphs and tables.
		Find one-sided limits from graphs and tables.
	Limits and Continuity	
		Apply the extreme value theorem.
		Describe the behavior of a function around discontinuities.
		Determine the types of discontinuity of a function.
		Use limits to determine if a function is continuous at a point.
	Finding Limits	
		Find a limit algebraically.
	Limits, Asymptotes, and End Behavior	
		Use limits to determine a horizontal asymptote of a function.
		Use limits to determine a vertical asymptote of a function.
		Use limits to determine the end behavior of a function.
	Limits as They Relate to Sequences and Series	
		Determine the error caused when a series is truncated.
		Identify a limit of partial sums that represents an infinite series.
		Use limits to determine whether a sequence or series converges or diverges.
	Performance Task: Finding and Applying Limits of Functions	

Unit	Lesson	Lesson Objectives
Number Sense		
	Adding Integers	
		Apply properties of operations to add integers.
		Describe real-world contexts for adding integers.
		Use visual representations to add integers.
	Subtracting Integers	
		Describe real-world contexts for subtracting integers.
		Use additive inverse and properties of operations to subtract integers.
		Use visual representations to subtract integers.
	Multiplying Integers	
		Apply properties of operations and rules of signed numbers to multiply integers.
		Describe real-world contexts for multiplying integers.
		Use visual representations to multiply integers.
	Dividing Integers	
		Apply properties of operations and rules of signed numbers to divide integers.
		Describe real-world contexts for dividing integers.
		Use visual representations to divide integers.
	Adding and Subtracting Decimals	
		Apply properties of operations to add and subtract decimals.
		Describe real-world contexts for adding and subtracting decimals.
		Estimate sums and differences of decimals.
		Use visual representations to add and subtract decimals.
	Estimating and Finding Decimal Products	
		Find decimal products and use estimation to place the decimal point in a product.
	Multiplying Fractions	
		Apply properties of operations to multiply fractions.
		Describe real-world contexts for multiplying fractions.
		Estimate products of fractions.
		Use the rules of signed numbers and visuals to multiply fractions.
	Dividing Fractions	
		Apply properties of operations to divide fractions.
		Describe real-world contexts for dividing fractions.
		Estimate quotients of fractions.
		Use the rules of signed numbers to divide fractions.

Unit	Lesson	Lesson Objectives
Expressions, Equations, and Inequalities		
	Writing and Evaluating Expressions	
		Evaluate algebraic expressions containing one operation.
		Write algebraic expressions containing one operation.
	Expressions with and without Parentheses	
		Use the order of operations to evaluate algebraic expressions containing more than one operation, with and without parentheses.
		Write algebraic expressions containing more than one operation, with and without parentheses.
	Equivalent Expressions	
		Generate equivalent expressions using the commutative and associative properties.
		Use substitution to determine if two expressions are equivalent.
	Using the Distributive Property	
		Identify and justify distributed expressions.
		Use the distributive property to simplify expressions.
	Absolute Value	
		Compare and order magnitudes using absolute value.
		Define absolute value.
		Find the absolute value of an integer.
		Represent and compare real-world quantities using absolute value.
	Addition and Subtraction Equations	
		Solve one-step addition and subtraction equations in the real world and interpret the results.
		Solve one-step addition and subtraction equations.
	Multiplication and Division Equations	
		Solve one-step multiplication and division equations.
		Write and solve one-step multiplication and division equations in the real world and interpret the results.
	Solving Two-Step Equations	
		Solve two-step equations in the real world and interpret the results.
		Solve two-step equations.
	Combining Like Terms to Solve Equations	
		Determine and apply properties of equality when solving an equation.
		Identify and combine like terms to solve one-variable linear equations.
	Solving Two-Step Inequalities	
		Solve two-step inequalities in the real world and interpret the results.
		Solve two-step inequalities.

Unit	Lesson	Lesson Objectives
Ratios, Proportional Relationships, and Percents		
	Equivalent Ratios	
		Analyze patterns in a table of equivalent ratios.
		Find missing values in a table using ratio reasoning.
	Ratios in Real-World Situations	
		Compare ratios in real-world contexts.
	Unit Rates	
		Use a given unit rate and proportional reasoning to complete a table.
		Use a given unit rate and proportional reasoning to solve problems.
		Use appropriate language to describe ratios and unit rates.
	Proportions	
		Solve proportion problems by using equivalent fractions.
		Solve proportion problems involving complex fractions.
		Write a proportion to represent a given relationship.
	Determining a Scale Factor	
		Identify a scale factor from given dimensions and use it to calculate unknown dimensions.
	Solving Scale Problems Using Proportions	
		Use proportional relationships to solve problems involving scale drawings.
	Finding a Percent of a Number	
		Find the percent of a number when the percent is more than 100.
		Solve problems by finding the percent of a number, including amounts of gratuity and tax, by using diagrams and expressions.
	Finding a Total Amount	
		Find the total amount, including discounts, understanding that it is a process of subtracting from the original amount.
		Solve for the total amount in gratuity, tax, or commission problems by using diagrams and expressions, understanding that it is a process of adding to the original amount.
	Percent Increase and Decrease	
		Find the percent change by using the ratio of the change in quantity to the original amount.
		Use percent increase and decrease to solve real-world problems.
Number Properties		
	Prime Numbers and Prime Factorization	
		Identify a number as prime or composite.
		List the factors of a number.
		Represent a number as the product of its prime factors, using exponents to show repeated factors.

Unit	Lesson	Lesson Objectives
	Factors and Multiples	
		Apply greatest common factors and least common multiples to solve real-world problems.
		Determine the greatest common factor of two numbers.
		Determine the least common multiple of two numbers.
	Powers and Exponents	
		Evaluate powers using fractional and negative bases.
		Express a power of a positive integer base in expanded form.
		Express expanded form in exponential form.
	Zero and Negative Exponents	
		Determine patterns of exponent values from a table.
		Evaluate powers of zero and negative exponents.
		Simplify expressions of zero and negative exponents.
	Introduction to Scientific Notation	
		Convert very small or very large numbers between scientific notation and standard notation.
		Order and estimate products and quotients of numbers written in scientific notation.
Analytic Geometry		
	Tables, Graphs, and Equations	
		Generate different representations of the same two-variable data.
		Recognize that tabular and graphical representations may be partial representations.
		Translate tables and graphs into equations.
	Introduction to Functions	
		Determine if a real-world situation describes a functional relationship.
		Identify functions from tables, graphs, and equations.
	Constructing Linear Functions	
		Analyze linear functions to find the rate of change and initial value.
		Interpret the rate of change and initial value of a linear function in terms of the situation it models.
	Exploring Slope	
		Determine the value of the slope of a line from a table or a graph.
		Recognize the difference between positive slope, negative slope, no slope, and zero slope.
	Proportional Relationships	
		Compare proportional and nonproportional linear functions in the form of a table, graph, and equation.
		Determine whether a linear function is a direct variation.
		Solve problems involving direct variation.

Unit	Lesson	Lesson Objectives
	Slope-Intercept Form	
		Analyze a graph to determine slope and *y*-intercept.
		Graph a linear function using the slope and *y*-intercept.
		Write a linear equation in slope-intercept form given the slope and *y*-intercept.
	Comparing Functions in the Real World	
		Analyze real-world linear relationships in order to make comparisons.
Geometry Basics		
	Angle Relationships	
		Determine congruence in vertical angle relationships.
		Find missing angle measures using angle relationships.
		Identify vertical, adjacent, complementary, and supplementary angles.
		Name an angle.
	Parallel Lines Cut by a Transversal	
		Determine if two lines cut by a transversal are parallel.
		Find missing measurements using angle relationships in a diagram of a transversal crossing parallel lines.
		Identify interior angles, exterior angles, alternate interior angles, and alternate exterior angles when a transversal crosses parallel lines.
	Translations	
		Describe a translation using coordinates.
		Identify and describe a translation on the coordinate plane.
		Translate figures on the coordinate plane given as an ordered pair and verbal expression.
	Reflections	
		Describe a reflected figure using the line of reflection and coordinates.
		Identify and describe a reflection on the coordinate plane.
		Reflect figures on the coordinate plane given the line of reflection.
	Rotations in the Coordinate Plane	
		Describe the rotation of a figure using coordinates.
		Rotate figures on the coordinate plane given the degree and direction.
	Congruence and Transformations	
		Describe a sequence of transformations that shows that a given pre-image is congruent to a transformed figure.
Counting and Probability		
	Understanding Probability	
		Describe the probability of an event as a number between 0 and 1, which represents the likelihood of the event.
		Identify an event with a given probability as impossible, unlikely, likely, or certain.
		Use the fact that the sum of the probabilities of all possible outcomes is 1 to find the probabilities of complementary events.

Unit	Lesson	Lesson Objectives
	Experimental vs. Theoretical Probability	
		Compare experimental results to theoretical probabilities and make conjectures about the results.
		Explain possible sources of discrepancy between the theoretical and experimental probability of an event.
	Probability of Compound Events	
		Find probabilities of dependent compound events using organized lists, tables, or tree diagrams.
		Find probabilities of independent compound events using organized lists, tables, or tree diagrams.
	Combinations	
		Find possible outcomes.
		Solve or identify solutions to problems involving combinations.
	Sampling Methods	
		Compare a random sample to a biased sample in a variety of real-world contexts to determine validity.
		Identify and explain the process for choosing a random sample.
	Inferences and Predictions	
		Examine sample size and the effect on a prediction using the results of a simulation.
		Make an inference about the whole population based on a sample by using proportional reasoning.
Statistics		
	Summarizing Data Sets with Statistics	
		Compare two data sets with the same measure of center but different measures of spread.
		Find the mean, median, range, and interquartile range of a data set.
	Box Plots	
		Create a box plot to represent a set of data, given the summary statistics.
		Interpret a box plot.
	Comparing Measures of Center and Variability	
		Analyze two numerical data distributions with similar variation by calculating and comparing the measures of center to the measure of variability.
		Compare the measures of center of two sets of data using a multiple of the measure of variability, expressed as a ratio.
		Draw an informal comparative inference about two sets of data.
	Constructing Scatterplots	
		Analyze a scatterplot.
		Classify dependent and independent variables.
		Create a scatterplot using a table of values.
	Using Equations to Represent Trend Lines	
		Create the linear equation of the trend line.
		Find and interpret the slope of a trend line.

Unit	Lesson	Lesson Objectives
Square Roots and Right Triangles		
	Exploring the Pythagorean Theorem	
		Apply the Pythagorean theorem using Pythagorean triples as the side lengths.
		Identify sets of Pythagorean triples.
		Recognize perfect squares.
		Use Pythagorean triples to determine if a triangle is a right triangle.
	Estimating and Comparing Square Roots	
		Estimate square roots without using technology.
		Make comparative statements involving square roots.
		Plot the estimated values of square roots on a number line.
	Finding the Hypotenuse in Right Triangles	
		Approximate the length of the hypotenuse of a right triangle to solve real-world problems.
		Use the Pythagorean theorem to find the length of the hypotenuse of a right triangle.
	Unknown Leg Lengths in Right Triangles	
		Approximate the length of a leg of a right triangle to solve real-world problems.
		Given the length of one leg and the hypotenuse of a right triangle, use the Pythagorean theorem to find the length of the other leg.
	Finding Distance in the Coordinate Plane	
		Apply the Pythagorean theorem to find the distance between two points on the coordinate plane.
		Generate and use the distance formula to find the distance between two points on the coordinate plane.
	Exploring Real Numbers	
		Classify numbers as rational or irrational numbers, and decimals as terminating or repeating.
		Determine sums and products of rational and irrational numbers.
		Express a repeating decimal with bar notation, and convert it to a fraction.
Two- and Three-Dimensional Geometry		
	Finding Area on a Coordinate Plane	
		Calculate the area of a rectangle drawn in the coordinate plane.
		Find lengths of sides for rectangles drawn in the coordinate plane.
	Area of Triangles	
		Calculate the area of triangles using the formula $A = \frac{1}{2}bh$.
		Solve real-world problems involving the area of triangles.
	Area of Special Quadrilaterals	
		Find the area of special quadrilaterals.
		Solve real-world problems involving the area of special quadrilaterals.

Unit	Lesson	Lesson Objectives
	Constructing Triangles	
		Construct triangles from given parameters.
		Identify whether given parameters create a unique triangle, more than one triangle, or no triangle.
	Surface Area of Composite Figures	
		Calculate surface areas of composite figures.
	Volume of Composite Figures	
		Calculate volumes of composite figures.
	Surface Area and Volume of Cylinders	
		Solve mathematical and real-world problems involving the volume and surface area of cylinders.
	Introduction to the Volume of a Cone	
		Apply the formula to find the volume of a cone.
		Connect the volume of a cone to the volume of a cylinder.
		Recognize and identify parts of a cone.
	Introduction to the Volume of a Sphere	
		Apply the formula to find the volume of a sphere.
		Connect the volume of a sphere to the volume of a cylinder.
		Identify the parts of a sphere.

Pre-Algebra – MA3119 IC

Course Overview and Syllabus

Course Number: MA3119

Grade Level: 9

Prerequisite Courses: Math 8

Credits: 1.0

Course Description

This full-year course is designed for students who have completed a middle school mathematics sequence but are not yet Algebra-ready. This course reviews key algebra readiness skills from the middle grades and introduces basic Algebra I work with appropriate support. Students revisit concepts in number and operations, expressions and equations, ratio and proportion, and basic functions. By the end of the course, students are ready to begin a more formal high school Algebra I study.

Course Objectives

Throughout the course, you will meet the following goals:

- Perform operations with rational numbers and use them to simplify expressions
- Use mathematical and algebraic expressions and equations to represent and solve a variety of mathematical and real-world problems
- Understand the concept of a function and its use in representing relationships
- Exercise proportional thinking and use it to analyze the connection between ratio, proportion, and percent
- Understand geometric concepts and strengthen spatial reasoning
- Develop and use problem-solving strategies
- Use statistics to display, describe, and analyze data
- Understand counting methods, and apply them to calculate probabilities

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Lesson Quizzes	30%
Unit Tests	30%
Cumulative Exams	20%
Assignments	20%
Additional	0%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Number Sense
Unit 2: Expressions, Equations, and Inequalities
Unit 3: Ratios, Proportional Relationships, and Percents
Unit 4: Number Properties
Unit 5: Analytic Geometry
Unit 6: Geometry Basics
Unit 7: Counting and Probability
Unit 8: Statistics
Unit 9: Square Roots and Right Triangles
Unit 10: Two- and Three-Dimensional Geometry

Course Description

Designed to follow Algebra II, this rigorous full-year course builds upon students understanding of various aspects of functions: graphing, composition, inverses, modeling, systems, and inequalities. Students expand their knowledge of trigonometric functions to include graphs of reciprocal functions, and they apply trigonometry to a variety of real-world problems. Students prove trigonometric identities and use them to solve equations. Throughout the course students make connections between geometry and algebra as they: use graphs to solve polynomial, rational, exponential, and logarithmic inequalities; perform operations with complex numbers and vectors; use coordinate algebra to derive equations of ellipses and hyperbolas; and find limits of functions. The standards of mathematical practice are embedded throughout the course as students apply mathematical concepts in modeling situations, make sense of problem situations, solve novel problems, reason abstractly, and think critically.

Course Objectives

Throughout the course, you will meet the following goals:

- Analyze characteristics of relations and functions and interpret them in modeling contexts.
- Use mathematical modeling to solve real-world problems.
- Make connections between numeric, graphical, and algebraic representations of relations and functions.
- Apply a variety of techniques to solve equations, inequalities, and systems.
- Use logical thinking to derive, verify, and prove algebraic relationships, formulas, theorems, and identities.

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

- Assignments 20%
- Quiz 20%
- Unit Tests 30%
- Exams 20%
- Project 10%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Functions and Modeling

Unit 2: Trigonometry

Unit 3: Analytic Trigonometry

Unit 4: Complex Numbers and Polar Coordinates

Unit 5: Vectors

Unit 6: Matrices

Unit 7: Systems and Matrices

Unit 8: Analytic Geometry

Unit 9: Sequences and Series

Unit 10: Limits

Standards Alignment For Precalculus - MA3112 IC

Select a state below to see the standards alignments for this course. You can then roll your mouse over the "State ID" to see the full text of that standard.

State: PA | Document: Pennsylvania Core and Academic Standards - 2014 | Load Standards

Functions and Modeling

Lesson	Grade Level	State ID
Graphs of Rational Functions		
Functions and Transformations		
	12	CC.2.2.HS.C.3.
	12	CC.2.2.HS.C.4.
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.7.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Composition of Functions and Modeling		
	12	CC.2.2.HS.C.1.
	12	CC.2.2.HS.C.3.
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.7.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Comparing a Function and Its Inverse		
Inverse of a Function		
	12	CC.2.2.HS.C.1.
	12	CC.2.2.HS.C.4.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Polynomial Inequalities		
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.4.
	12	CC.2.2.HS.D.7.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Rational Inequalities		
	12	CC.2.2.HS.C.3.
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.6.
	12	CC.2.2.HS.D.7.
M[illegible]th Exponential and Logarithmic Equations		
	12	CC.2.2.HS.C.3.

	12	CC.2.2.HS.C.3.
	12	CC.2.2.HS.D.10.
Exponential and Logarithmic Inequalities	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.7.
	12	CC.MP.1.
	12	CC.MP.3.
	12	CC.MP.4.
	12	CC.MP.6.
Unit Test		

Trigonometry

Lesson	Grade Level	State ID
Angles and Trigonometric Functions	12	CC.2.2.HS.C.7.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Linear and Angular Velocity		
Graphing Sine and Cosine Functions		
	12	CC.2.2.HS.C.4.
	12	CC.2.2.HS.C.7.
	12	CC.MP.1.
	12	CC.MP.3.
	12	CC.MP.4.
	12	CC.MP.6.
General Form of Sine and Cosine		
	12	CC.2.2.HS.C.4.
	12	CC.2.2.HS.C.6.
	12	CC.2.2.HS.C.8.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Graphing Cosecant and Secant Functions		
Graphing Tangent and Cotangent		
Inverse Trigonometric Functions		
	12	CC.2.2.HS.C.4.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Performance Task: Modeling with Sinusoidal Functions		
	12	CC.2.2.HS.C.3.
	12	CC.2.2.HS.C.8.
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.7.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Unit Test		

Analytic Trigonometry

Lesson	Grade Level	State ID
Trigonometric Difference Identities	12	CC.2.2.HS.C.7.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
	12	CC.MP.7.

Trigonometric Sum Identities	12	CC.2.2.HS.C.7.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
	12	CC.MP.7.
Trigonometric Double Angle Identities	12	CC.2.2.HS.C.7.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
	12	CC.MP.7.
Trigonometric Half Angle Identities	12	CC.2.2.HS.C.7.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
	12	CC.MP.7.
Solving Trigonometric Equations		
Solving Trigonometric Inequalities		
Unit Test		

Complex Numbers and Polar Coordinates

Lesson	Grade Level	State ID
Performing Operations with Complex Numbers		
Distance and Midpoints in the Complex Plane		
Polar Form of Complex Numbers	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Graphing Polar Equations	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Add and Subtract Complex Numbers		
	12	CC.2.1.HS.F.6.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Multiply and Divide Complex Numbers		
	12	CC.2.1.HS.F.6.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Powers and Roots of Complex Numbers		
	12	CC.2.1.HS.F.6.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Unit Test		

Vectors

Lesson	Grade Level	State ID
Vectors and Their Components	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Vec n and Subtraction	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Law of Sines and Law of Cosines — a Deeper Look		

Applying Vectors in the Plane	12	CC.2.2.HS.C.8.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Dot Product and Work	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Unit Test		

Matrices

Lesson	Grade Level	State ID
Introduction to Matrices		
Adding and Subtracting Matrices		
Scalar and Matrix Multiplication		
Determinants		
Matrices and Their Inverses		
Solving Matrix Equations		
Unit Test		

Systems and Matrices

Lesson	Grade Level	State ID
Cramer's Rule		
Matrices and Row Operations		
Modeling with Matrices		
Vector Multiplication Using Matrices		
Partial Fractions	12	CC.2.2.HS.D.3.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Unit Test		

Analytic Geometry

Lesson	Grade Level	State ID
Conic Sections		
	12	CC.2.2.HS.C.4.
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.7.
	12	CC.2.3.HS.A.10.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Equations of Ellipses		
	12	CC.2.2.HS.C.6.
	12	CC.2.3.HS.A.10.
Equations of Hyperbolas		
	12	CC.2.2.HS.C.6.
	12	CC.2.3.HS.A.10.
Equations of Hyperbolas (continued)		
	12	CC.2.2.HS.C.6.
	12	CC.2.3.HS.A.10.
The General Equation of Conic Sections		
	12	CC.2.2.HS.C.4
	12	CC.2.2.HS.C.
	12	CC.2.3.HS.A.10.
	12	CC.MP.1.

	12	CC.MP.4.
	12	CC.MP.6.
Applications of Conics		
	12	CC.2.2.HS.C.3.
	12	CC.2.2.HS.C.5.
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.7.
	12	CC.2.3.HS.A.10.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
	12	CC.MP.7.
Conic Inequalities		
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.7.
	12	CC.2.3.HS.A.10.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Systems of Inequalities		
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.7.
	12	CC.2.3.HS.A.10.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Graphing Parametric Equations		
	12	CC.2.2.HS.D.8.
	12	CC.2.3.HS.A.10.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Performance Task: Graphing Conic Sections		
	12	CC.2.2.HS.C.6.
	12	CC.2.2.HS.D.10.
	12	CC.2.2.HS.D.7.
	12	CC.2.3.HS.A.10.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Unit Test		

Sequences and Series

Lesson	Grade Level	State ID
Arithmetic Sequences		
Geometric Sequences		
Summation Notation		
Summation Properties and Rules		
Arithmetic Series		
Finite Geometric Series		
Infinite Geometric Series		
Rec rmulas		
M h Sequences and Series		
Uni		

Limits

Lesson	Grade Level	State ID
Understanding the Concept of a Limit		
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Limits and Continuity		
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Finding Limits		
	12	CC.2.2.HS.C.6.
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Limits, Asymptotes, and End Behavior		
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Limits as They Relate to Sequences and Series		
	12	CC.MP.1.
	12	CC.MP.4.
	12	CC.MP.6.
Unit Test		

Unit	Lesson	Lesson Objectives
Data Analysis		
	Introduction to Statistics	
		Classify a variable as categorical, discrete quantitative, or continuous quantitative.
		Identify a variable from a set of data.
		Identify an individual from a set of data.
	Categorical Data Displays	
		Determine if a graphical display is appropriate for a given data set.
		Determine what makes a graph of categorical data deceptive.
		Identify a frequency table and a relative frequency table given data.
		Interpret a bar graph or pie chart.
	Relative Frequencies	
		Complete a two-way table, and calculate marginal and conditional distributions.
		Create conditional relative frequency distributions.
		Create marginal relative frequency distributions.
		Given a two-way table, calculate conditional relative frequency distributions.
		Given a two-way table, calculate marginal and joint relative frequency distributions.
		Interpret frequencies appropriately when given data from samples that differ considerably in sample size for two categorical variables.
	Comparing Two Categorical Variables	
		Compare distributions of categorical data using segmented or side-by-side bar graphs.
		Decide whether two categorical variables are associated using segmented or side-by-side bar graphs.
		Display three categorical variables in side-by-side bar graphs.
		Use appropriate phrasing in the depth and detail required by the College Board to compare and contrast categorical variables.
	Describing and Comparing Data with Dotplots and Stemplots	
		Compare two distributions using dotplots or stemplots.
		Identify and/or describe a dotplot.
		Identify and/or describe a stemplot.
	Describing and Comparing Data with Histograms	
		Compare two distributions using histograms.
		Identify the patterns, shape, and spread of a distribution using histograms.
		Relate measures of center to the shape of a distribution using histograms.
	Measures of Center and Location	
		Analyze the effect of extreme values on the value of the mean and median.
		Analyze the relationship between center and shape.
		Calculate measures of center, given a data set or a graphical display.
		Interpret the measures of center.

Unit	Lesson	Lesson Objectives
	Measures of Variability	
		Calculate the range, standard deviation, or interquartile range of a univariate data set.
		Compare the spread given graphical displays of two univariate data sets.
		Interpret the range, standard deviation, or interquartile range of a univariate data set.
		Use a graphing calculator to compute the numerical summary of a univariate data set.
	Boxplots and Outliers	
		Compare distributions presented in parallel boxplots.
		Create a boxplot using a graphing calculator.
		Identify if a univariate data set contains any outliers.
		Identify the percent and number of values lying in each portion of a boxplot.
		Represent univariate data using a boxplot.
The Normal Distribution		
	Calculating and Interpreting z-Scores	
		Calculate a data value given a z-score, standard deviation, and mean.
		Calculate a z-score.
		Compare performance using three or more z-scores.
		Compare performance using two or more z-scores.
		Interpret a z-score.
	Uniform Density Curves	
		Calculate probabilities using the appropriate area within a uniform density curve.
		Describe a density curve.
		Estimate the mean and median value of a density curve.
	Normal Distributions	
		Calculate probabilities using the empirical rule.
		Describe a Normal distribution using the empirical rule.
		Describe the properties of a Normal distribution.
	Finding Areas within a Normal Distribution	
		Estimate the proportion of values in a Normal distribution between two values using a Normal distribution table.
		Estimate the proportion of values in a Normal distribution for inclusive intervals of less than or equal to, greater than or equal to, or between and including values.
		Estimate the proportion of values in a Normal distribution to the left of a value or to the right of a value using a Normal distribution table.
		Estimate the proportion of values in a Normal distribution using a graphing calculator.
		Estimate the proportion of values in a standard Normal distribution using a graphing calculator.

Unit	Lesson	Lesson Objectives
	Finding Values from Probabilities	
		Determine the data-value, x, in a Normal distribution for a given percentile.
		Determine the value in a Normal distribution that bounds a given area, using a graphing calculator.
		Determine the z-score for a given probability.
Simple Linear Regression		
	The Relationship between Two Quantitative Variables	
		Create a scatterplot using a graphing calculator.
		Describe the direction, form, strength, and unusual observations given a scatterplot.
		Identify the explanatory and response variable.
		Represent two quantitative variables using a scatterplot.
	Correlation	
		Describe the effect of unusual observations on the correlation.
		Distinguish between correlation and causation.
		Interpret the correlation of a linear relationship between two quantitative variables.
	Making Predictions from a Least-Squares Regression Line	
		Interpret the slope and y-intercept of a linear model.
		Make a prediction using a linear model.
	Calculating the Least-Squares Regression Line	
		Compute a least-squares regression line and correlation using technology.
		Explain why the line that is the best fit for a linear relationship is called the least-squares regression line.
		Identify a least-squares regression line using computer output.
	Residuals	
		Assess linearity based upon a residual plot.
		Calculate residuals.
		Create a residual plot on the graphing calculator.
		Create a residual plot.
	R*-squared and *s	
		Describe the effect that influential points have on the least-squares regression line.
		Determine r^2 using a graphing calculator or computer output.
		Identify s.
		Interpret r^2 and s in context.
	Transforming to Achieve Linearity	
		Predict the response variable based upon the equation of a least-squares regression line that describes a transformed data set.
		Transform a nonlinear data set using powers, roots, or logarithms.
		Write the equation of a least-squares regression line that describes a transformed data set given computer output.

Unit	Lesson	Lesson Objectives
	Choosing the Best Model	
		Assess how well a model fits a given data set.
		Choose an appropriate model for a bivariate data set given regression output and residual plots.
		Make a prediction based on the computer output provided for various regression models.
Sampling and Experimentation		
	Introduction to Sampling Methods	
		Analyze a study to determine if bias is present and whether that bias leads to an overestimate or underestimate of the population parameter.
		Describe a population and sample given a description of a study.
		Identify whether a study utilized convenience sampling or voluntary response sampling.
	Simple Random Sample	
		Describe the process of simple random sampling.
		Explain the process of generating a simple random sample using a random number generator.
		Explain the process of generating a simple random sample using a table of random digits.
	Other Sampling Methods	
		Describe the process and/or advantages and disadvantages of cluster sampling.
		Describe the process and/or advantages and disadvantages of stratified random sampling.
		Describe the process and/or advantages and disadvantages of systematic random sampling.
		Distinguish between stratified random sampling, systematic random sampling, and cluster sampling.
	Considerations When Sampling	
		Describe the direction of the bias presented in a study.
		Describe the sampling problems of undercoverage, nonresponse, response, and question-wording bias.
		Identify whether a study is affected by undercoverage, nonresponse, response, or question-wording bias.
	Observational Studies and Experiments	
		Describe the effect of confounding.
		Distinguish between an observational study and an experiment.
		Identify the explanatory variable, response variable, treatments, experimental units/subjects, factors, and levels of an experimental design.
	Additional Principles of Experimental Design	
		Identify the benefits of using the principle of comparison within an experimental design.
		Identify the benefits of using the principle of control and replication within an experimental design.
		Identify the benefits of using the principle of random assignment within an experimental design.
		Identify the placebo effect, as well as the benefits of blindness, within an experimental design.
	How to Experiment Well	
		Describe the randomization step within an experimental design using a random number generator.
		Describe the randomization step within an experimental design using a table of random digits.
		Describe the randomization step within an experimental design using slips of paper.
		Identify the reason for randomization for a well-constructed experimental design.

Unit	Lesson	Lesson Objectives
	Experimental Designs	
		Describe the structure of a completely randomized design, including details about the randomization process.
		Describe the structure of a randomized block design, including details about the randomization process.
		Describe the structure of the matched pairs version of a randomized block design, including details about the randomization process.
	Scope of Inference	
		Describe the concept of sampling variability with regards to the size of the sample.
		Determine if the results of an experiment are statistically significant based upon simulated results.
		Determine the appropriate scope of inference for the study design used.
Probability		
	Introduction to Probability	
		Conduct a simulation using a graphing calculator.
		Describe how a simulation is used to imitate a random process.
		Describe the law of large numbers.
		Interpret probability as the long-run relative frequency of an event.
	Probability Rules	
		Apply the basic probability rules, which indicate that the probability of an event is a number between 0 and 1 and that the sum of the probabilities of all outcomes in the sample space is 1.
		Apply the complement rule and the addition rule for mutually exclusive events.
		Identify a probability model to describe a random process.
	Applying Probability Rules	
		Determine probabilities using a two-way table.
		Determine probabilities using a Venn diagram.
	Conditional Probabilities	
		Calculate a conditional probability.
		Determine if two events are independent.
		Interpret a conditional probability.
	The Multiplication Rule for Dependent Events	
		Calculate a probability using a tree diagram.
		Calculate a probability using the general multiplication rule.
		Use a tree diagram to determine the sample space.
	The Multiplication Rule for Independent Events	
		Determine if it is appropriate to use the multiplication rule for independent events, the addition rule for mutually exclusive events, or neither.
		Calculate a probability using the multiplication rule for independent events.
		Calculate the probability of "at least one" using the multiplication rule for independent events or other multi-step probabilities.

Unit	Lesson	Lesson Objectives
Random Variables		
	Introduction to Random Variables	
		Calculate the probability of an event given a probability distribution of a discrete random variable.
		Describe the shape of a probability distribution histogram of a discrete random variable.
		Identify a probability distribution histogram of a discrete random variable.
		Interpret the probability of an event given a probability distribution of a discrete random variable.
	Discrete Random Variables – Mean	
		Calculate the mean, median, and/or standard deviation of the probability distribution of a discrete random variable.
		Compare the shape, center, and/or variability given two probability distribution histograms.
		Interpret the standard deviation of the probability distribution of a discrete random variable.
	Combining Two Random Variables	
		Calculate a probability based upon the sum or difference of two or more random variables.
		Calculate the mean and standard deviation of a linear combination of random variables.
		Calculate the mean and standard deviation of the sum or difference of two or more random variables.
		Interpret the mean and standard deviation of the sum or difference of two or more random variables.
	Binomial Random Variables	
		Calculate the mean and standard deviation of a binomial random variable.
		Describe the shape, center, and/or variability of a probability histogram of a binomial random variable.
		Determine if a scenario describes a binomial setting.
	Binomial Probabilities	
		Approximate binomial probabilities using a Normal distribution.
		Calculate cumulative binomial probabilities using a graphing calculator.
		Calculate cumulative binomial probabilities using the binomial probability formula.
		Calculate the binomial probability $P(X = k)$ using the binomial probability formula.
		Calculate the binomial probability $P(X = k)$ using a graphing calculator.
	Geometric Random Variables	
		Calculate a geometric probability using a graphing calculator.
		Calculate a geometric probability using the geometric probability formula.
		Calculate the mean and standard deviation of a geometric random variable.
		Determine if a scenario describes a geometric setting.
	Simulations	
		Describe the simulation of a binomial probability distribution.
		Describe the simulation of a geometric probability distribution.

Unit	Lesson	Lesson Objectives
Sampling Distributions		
	Introduction to Sampling Distributions	
		Distinguish between the population distribution, sample distribution, and a sampling distribution of a statistic.
		Identify a sampling distribution.
		Identify the population, parameter, sample, and statistic given a scenario.
	Sampling Distributions – Center and Variability	
		Describe the variability of a sampling distribution as it relates to the size of the sample.
		Determine if a sample statistic is an unbiased estimator of the population parameter.
		Evaluate a claim about a population parameter based upon a sampling distribution of a statistic.
	Sampling Distribution of the Sample Proportion	
		Determine the shape, mean, and/or standard deviation of the sampling distribution of the difference in two sample proportions.
		Determine the shape, mean, and/or standard deviation of the sampling distribution of the sample proportion.
		Interpret the standard deviation of the sampling distribution of the sample proportion or the sampling distribution of the difference in two sample proportions.
	Calculating Probabilities for Sampling Distribution	
		Calculate a probability based upon the sampling distribution of $\hat{p}$.
		Calculate a probability based upon the sampling distribution of $\hat{p}_1 - \hat{p}_2$.
		Determine if there is convincing evidence against a claim based upon a calculated probability.
	Sampling Distribution of the Sample Mean	
		Describe the shape of the sampling distribution of the sample mean.
		Describe the shape, mean, and/or standard deviation of the sampling distribution of the difference in two sample means.
		Describe the shape, mean, and/or standard deviation of the sampling distribution of the sample mean.
	Using the Central Limit Theorem	
		Calculate probabilities given a non-Normal population, when appropriate, based upon the sampling distribution of the sample mean or difference in sample means.
		Calculate probabilities given a Normal population based upon the sampling distribution of the sample mean or difference in sample means.
Estimating Proportions with Confidence		
	Introduction to Confidence Intervals	
		Calculate the value of a point estimate and/or the margin of error of a given confidence interval.
		Evaluate a claim about a population parameter given a confidence interval.
		Interpret a confidence interval.
	More about Confidence Intervals	
		Determine how the margin of error and width of the interval is affected by the confidence level and sample size.
		Identify the sources of variability that are and are not accounted for by the margin of error in a confidence interval.
		Interpret the confidence level.

Unit	Lesson	Lesson Objectives
	Preparing to Estimate a Population Proportion	
		Calculate the point estimate and standard error of the sample proportion.
		Determine the critical value for a specific confidence level for a population proportion using a table and technology.
		Verify if each of the conditions for calculating a confidence interval for a population proportion are met.
	Estimating a Population Proportion	
		Calculate the minimum sample size that is needed to construct a confidence interval for a population proportion with a given confidence level and a given margin of error.
		Construct a confidence interval for a population proportion.
		Evaluate a claim about a population proportion based upon a calculated confidence interval.
	Estimating the Difference between Two Population Proportions	
		Construct a confidence interval for a difference in two population proportions using a graphing calculator.
		Construct a confidence interval for a difference in two population proportions.
		Determine whether the conditions for calculating a confidence interval for a difference in two population proportions are met.
		Evaluate a claim about a difference in two population proportions based upon a calculated confidence interval.
Testing Claims about Proportions		
	Introduction to Hypothesis Testing	
		Draw a conclusion based upon the *P*-value.
		Interpret the *P*-value.
		State appropriate hypotheses for performing a hypothesis test about a population proportion.
	Type I and Type II Errors	
		Describe and give a consequence of a Type I and Type II error.
		Draw a conclusion based upon an estimated *P*-value.
		Estimate a *P*-value based upon the results of a simulation.
	Preparing to Test a Claim about a Population Proportion	
		Calculate the test statistic and the *P*-value for a significance test about a population proportion.
		Determine if the conditions needed to carry out a significance test about a population proportion are met.
		Draw a conclusion based upon a calculated *P*-value.
	Testing a Claim about a Population Proportion	
		Calculate a test statistic and *P*-value for a hypothesis test about a population proportion using a graphing calculator.
		Conduct a hypothesis test about a population proportion given computer output.
		Conduct a hypothesis test about a population proportion.
		Describe the power of a test and/or what influences the power of a test.
	Testing a Claim about a Difference between Proportions	
		Calculate a test statistic and *P*-value for a hypothesis test about a population proportion using a graphing calculator.
		Conduct a hypothesis test about a difference in two population proportions.
		Perform one step of a hypothesis test for a difference in two population proportions.

Unit	Lesson	Lesson Objectives
Estimating Means with Confidence		
	Preparing to Estimate a Population Mean	
		Calculate the standard error of the mean.
		Determine if the conditions required to compute a C% confidence interval for a population mean are met.
		Determine the t critical value needed to compute a C% confidence interval for a population mean.
		Interpret the standard error of the mean.
	Estimating a Population Mean	
		Construct a confidence interval for a population mean using a graphing calculator.
		Construct a confidence interval for a population mean.
		Describe how the margin of error of a confidence interval can be reduced.
		Evaluate a claim about a population mean based upon a calculated confidence interval.
	Estimating a Difference in Two Population Means	
		Construct a confidence interval for a difference in two population means using a graphing calculator.
		Construct a confidence interval for a difference in two population means.
		Determine if the conditions required to compute a confidence interval for a difference in two population means are met.
		Evaluate a claim about the difference in the population means based upon a calculated confidence interval.
	Estimating the Mean Difference	
		Calculate the mean difference and the standard deviation of the differences for paired data.
		Construct a confidence interval for a mean difference using a graphing calculator.
		Construct a confidence interval for a mean difference.
		Evaluate a claim about a population mean difference based upon a confidence interval.
Testing Claims about Means		
	Preparing to Test a Claim about a Mean	
		Calculate the test statistic and the P-value for a hypothesis test about a population mean.
		Determine if the conditions needed to carry out a hypothesis test about a population mean are satisfied.
		Draw a conclusion based upon a calculated P-value.
		State appropriate hypotheses for performing a hypothesis test about a population mean.
	Testing a Claim about a Population Mean	
		Calculate a test statistic and P-value for a hypothesis test about a population mean using a graphing calculator.
		Conduct a hypothesis test about a population mean.
		Identify and give a consequence of a Type I and Type II error.
		Interpret the P-value.
	Significance Tests and Confidence Intervals	
		Describe the power of a test and/or what influences the power of a test.
		State a conclusion about a significance test for a population mean based upon a confidence interval.

Unit	Lesson	Lesson Objectives
	Testing a Claim about a Difference between Means	
		Calculate a test statistic and *P*-value for a significance test about a difference in two population means using a graphing calculator.
		Conduct a significance test about a difference in two population means.
		Perform one step of a significance test for a difference in two population means.
	Testing a Claim about a Mean Difference	
		Calculate a test statistic and *P*-value for a hypothesis test about a mean difference using a graphing calculator.
		Conduct a hypothesis test about a mean difference.
		Perform one step of a hypothesis test for a mean difference.
	Choosing the Appropriate Inference Procedure	
		Determine the appropriate inference procedure.
		Distinguish between one sample, two samples, and paired data.

ChallengeU Pennsylvania Cyber CS
Appendix S
Social Studies Core Curriculum

Unit	Lesson	Lesson Objectives
Community, Values, and Civic Engagement		
	What Is Civics?	
		Compare federal and state court systems.
		Describe the organization of the United States judicial system.
		Explain how the Supreme Court uses judicial review to determine constitutionality.
	Personal and Civic Identities	
		Describe characteristics that affect one's identity.
		Describe how diversity influences our nation and its culture.
		Explain the concept of intersectionality.
	Individuals and Civic Engagement	
		Describe ways to become involved in a community.
		Explain strategies used by groups to influence change in US institutions.
		Explain the characteristics of civic institutions.
	Citizenship, Residency, and Individuals	
		Describe the paths to US citizenship.
		Explain the rights, duties, and responsibilities of citizenship.
		Identify the types of US citizenship.
	Media Literacy: Reliability and Relevance	
		Describe factors that make a source reliable and relevant.
		Distinguish between reliable and unreliable sources.
		Explain methods to determine the reliability and relevance of online sources.
Our Democratic Roots		
	Declaration of Human Rights	
	Rights, Limits, and Early Democracy	
		Describe democracy.
		Explain how the governments of ancient Athens and the Roman Republic influenced the US government.
	Comparing Ideas of the Enlightenment	
		Analyze the contributions of Enlightenment thinkers to the US system of government.
		Describe the expansion of the term "equality" from its use by Enlightenment thinkers to today.
		Explain the influence of Enlightenment ideals on US frameworks of government.
	Early Governments	
		Analyze the roles of the Iroquois during the colonial era.
		Analyze the weaknesses of the Articles of Confederation.
		Explain how British ideas influenced political institutions in colonial America.

Unit	Lesson	Lesson Objectives
	Constitution and Compromise	
		Compare ideas of the Federalists and the Anti-federalists.
		Describe events leading up to the Constitutional Convention.
		Describe the compromises of the Constitutional Convention.
	Compromise and Discourse Today	
		Describe appropriate verbal and nonverbal communication to use in discourse.
		Explain the relationship between discourse and compromise.
The Constitution		
	Ideals of the Constitution	
	We the People	
		Analyze the preamble of the Constitution.
		Describe the structure of the Constitution.
		Explain principles outlined in the Constitution.
	Freedom of Expression	
		Identify the purpose of the Bill of Rights.
		Explain the freedoms and rights protected under the First Amendment in the Bill of Rights.
	Defendants' Rights	
		Analyze the Supreme Court's interpretations of the rights of the accused.
		Describe individual rights and protections found in the Bill of Rights.
		Explain how the Bill of Rights guarantees protections for the accused.
	Equal Protections under the Law	
		Analyze how constitutional amendments have affected minority groups' political participation in the US.
		Describe the process for amending the Constitution.
		Explain the significance of key constitutional amendments that expanded rights.
	Media Literacy: Lateral Reading	
		Compare lateral and vertical reading strategies.
		Describe lateral reading.
		Use lateral reading to check the validity of a source.
People and Their Government		
	A Day in the Life	
	Federalism: A Balancing Act	
		Compare the powers of government at federal and state levels.
		Describe enumerated, reserved, and concurrent powers.
		Explain the concept of federalism.

Unit	Lesson	Lesson Objectives
	Legislative Branch	
		Analyze how Congress represents the people.
		Describe the powers of Congress.
		Describe the structure of Congress.
		Explain the lawmaking process.
	Executive Branch	
		Describe the powers and responsibilities of the executive branch.
		Describe the roles and responsibilities of the president.
		Explain the requirements for president as established by Article II.
	Judicial Branch	
		Compare federal and state court systems.
		Describe the organization of the United States judicial system.
		Explain how the Supreme Court uses judicial review to determine constitutionality.
	State and Local Governments	
		Compare the structures of federal, state, and local governments.
		Explain the relationship of local governments to state governments.
		Identify the level of government responsible for resolving an issue.
	Follow the Money: Local Budgets	
		Describe a plan to address a local budget issue.
		Describe how federal, state, and local taxes support community services.
		Propose a solution to a problem regarding a local budget issue.
Influencing the Government		
	Power and Influence	
	Influence of Mass Media	
		Analyze the media's influence on public opinion and policy.
		Describe how social media is taking on the roles of mass media.
		Explain the primary roles of media.
	You and Your Government	
		Describe the democratic process in the United States.
		Describe ways individuals can participate in the democratic process.
		Determine how the First Amendment supports the democratic process.
	Interest Group Influence	
		Analyze how interest groups influence government actions.
		Describe how public and private interest groups influence society.

Unit	Lesson	Lesson Objectives
	Media Literacy: Social Media	
		Describe strategies to evaluate claims and information in social media posts.
		Describe the benefits and drawbacks of using social media to share information.
		Explain the importance of evaluating information shared on social media.
	Civil Discourse	
		Analyze the effectiveness of political activism and advocacy.
		Analyze sides of an argument supported by evidence.
		Explain political activism and advocacy.

Course number: SS3303 IC

Grade level: 7 (appropriate for grades 6-10)

Prerequisite courses: none

Credits: .5

Course Description

The Civics and Government teaches about US society and government from diverse perspectives. The course begins by establishing the origins and founding principles of American government. The course guides students through the function of government today and the role of citizens in the civic process and culminates in an examination of public policy and the roles of citizens and organizations in promoting policy approaches. This course uses best practices in culturally relevant and culturally responsive education to equip students to navigate community and cultural norms and to critically analyze and influence their society. This semester-long course develops students' understanding of the relationships between individuals and their community and between people and their government. Students study the principles and founding ideals of US government and apply a critical lens to analyze the application of these ideals in our modern society.

Throughout the course, students examine primary and secondary sources, including political cartoons, essays, and judicial opinions. Students also sharpen their writing skills in shorter tasks and assignments, and practice outlining and drafting skills by writing full informative and argumentative essays. Students are exposed to the work of activists and advocates for change to help foster a sense of civic responsibility and inspire students to get involved in their own communities. Engaging interviews bring students up close with community advocates, law enforcement officers, and teen activists, and cover topics such as paths to US citizenship, civic engagement, and advocacy. Media-literacy lessons explore the risks and benefits of social media and the role of mass media as the fourth branch of government.

Students increase their level of civic literacy through rigorous assignments and projects in which they apply source reading, focused writing, and critical thinking skills to community issues and concerns. Students research ways to become civically active and engaged to create change in their communities. Throughout the course, students have opportunities to practice and observe different types of civil discourse—one of the most fundamental tenets of a democratic society. They learn to listen, communicate, and solve problems with others in a variety of situations.

Students will meet the following goals in this course.

Course Objectives

- Investigate the founding principles that guided the establishment of the United States government.
- Analyze the civil rights and liberties that are granted to United States citizens, and understand the influence of constitutional amendments and Supreme Court decisions that have developed these rights.
- Understand the structures and procedures of local, state, and federal governments.
- Explain individual and social identity and intersectionality.
- Discover how you can participate in government by voting, running for office, meeting civic obligations, and petitioning your representatives.
- Evaluate the changing definition of "all men" in US political and social history.
- Compare the powers and responsibilities of the three branches of US government.
- Describe ways individuals can participate in the democratic process and engage in civic activity.
- Compare strategies used by individuals and organizations to influence change in US institutions.

Student Expectations

This course requires the same level of commitment from students as a traditional classroom course. Students are expected to spend approximately 5–7 hours per week online on:

- Investigate how diversity influences our nation and culture.
- Describe the rights, duties, and responsibilities of citizenship.
- Analyze how principles in the Constitution limit the power of the government.
- Analyze principles outlined in the Constitution.
- Explain the freedoms and rights protected by the Bill of Rights.
- Analyze how constitutional amendments have expanded minority groups' political participation in the US.
- Analyze the Supreme Court's interpretations of the rights of the accused.
- Analyze the media's influence on public opinion and policy.
- Evaluate the reliability of information.
- Describe strategies to evaluate claims and information in social media posts.
- Describe how social media is taking on the roles of mass media.
- Explain the importance of evaluating information shared on social media.
- Analyze the effectiveness of political activism and advocacy.
- interactive lessons, which include a mixture of instructional videos and tasks.
- assignments, in which they apply and extend learning in each lesson.
- assessments, including quizzes, tests, and cumulative exams.

Communication

Teachers will communicate with students regularly through discussions, emails, chats, and system announcements. Students will also communicate with classmates, either via online tools or face to face, to collaborate, ask and answer questions in peer groups, and develop speaking and listening skills.

Grading Policy

Students will be graded on work completed online and work submitted electronically to the teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Assignments	15%
Projects	15%
Lesson quizzes	20%
Unit tests	30%
Cumulative exams	20%

Scope and Sequence

When students log on to Edgenuity, they can view the entire course map—an interactive scope and sequence of all topics under study. The units of study are listed below.

Course Units
Introduction to American Government
The Constitution
Civil Rights and Liberties
Government Institutions
Civics and Participation
Public Policy

Geography

Course Overview and Syllabus

Course Number: SS2045

Grade level: 9–12

Prerequisite Courses: None

Credits: 1.0

Course Description

Examining current geography and the impact on our world today, this course takes a thematic approach to understanding the physical geography of the world, development of human systems, human understanding of the world, and human-environment interaction. Divided into two semesters, this high school-level course will challenge students to develop geographic skills, including learning to interpret maps, analyze data, and compare theories. Offering interactive content that will grow students' understanding of the development of modern civilization and human systems—from the agricultural revolution to the technological revolution—this course encourages students to analyze historical and economic trends as well as compare global markets and urban environments.

Course Objectives

Throughout the course, you will meet the following goals:

- Interpret maps and spatial data to analyze the organization of people and places
- Identify factors that affect the delineation of regions and the role that natural and political boundaries play in the regionalization process
- Analyze relationships and patterns that occur at different geographic scales
- Examine the effect of changing political, economic, cultural, and physical systems on the relationships among places
- Investigate ways the environment has influenced human inhabitance, and analyze the effect that human settlement and activity have had on the environment
- Use social studies skills to access, interpret, and apply information from a variety of sources

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson

- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on project, ask and answer questions in your peer group, and develop speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Assignments	10%
Lesson Quizzes	20%
Unit Tests	50%
Cumulative Exams	20%
Additional	0%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Introduction to Geography

Unit 2: Global Geography:The Americas

Unit 3: Global Geography: Europe, Asia, Oceania,

Unit 4: Global Geography: Africa and the Middle East

Unit 5: Human Geography: Population and Migration

Unit 6: Human Geography: Culture of the Enlightenment

Unit 7: Human Geography: Culture and Environment

Unit 8: Politics and Boundaries

Unit 9: Agriculture and Land Use

Unit 10: Industrialization and Economic Development

Unit 11: The Urban Environment

U.S. History II

Course Overview and Syllabus

Course Number: SS3311 IC

Grade level: 9–12

Prerequisite Courses: None

Credits: 1.0

Course Description

U.S. History II is a yearlong course that examines the major events and turning points of U.S. history from the Industrial Revolution through the modern age. The course leads students toward a clearer understanding of the patterns, processes, and people that have shaped U.S. history. As students progress through each era of modern U.S. history, they will study the impact of dynamic leadership and economic and political change on the rise of the United States to global prominence, the influence of social and political movements on societal change, and the importance of modern cultural and political developments. Recurring themes lead students to draw connections between the past and the present, between cultures, and between multiple perspectives.

Course Objectives

Throughout the course, you will meet the following goals:

- Assess the political development of the United States, including the influence of democratic ideals, the changing role of government, and the development of the modern two-party system.
- Explore the evolution of American culture and society, including the role of reform movements, from industrialization to the present.
- Describe the role of immigration and migration in the development of the United States, and identify common push and pull factors that have affected these trends in U.S. history.
- Investigate and understand the reasons behind American involvement in wars and conflicts throughout U.S. history.
- Trace the economic development of the United States from an agrarian economy to an industrial economy to the leading economic force in the world.

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, e-mail, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Quiz	20%
Test	30%
Exam	20%
Essay	10%
Assignment	15%
Additional	0%
Project	5%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Industrialization and the Gilded Age
Unit 2: Immigration and Urbanization
Unit 3: Populism and the American West
Unit 4: Progressivism and Reform
Unit 5: Imperialism and the Great War
Unit 6: The '20s and the Great Depression
Unit 7: Entering World War II

Unit 8: Fighting World War II
Unit 9: The Rise of the Cold War
Unit 10: Civil Rights
Unit 11: Era of Cultural Change
Unit 12: The ‘70s and ‘80s
Unit 13: American in the Modern World

Standard ID	Standard Text	Edgenuity Lesson Name
PA.5.12.	**Civics and Government**	
5.1.12.	Principles and Documents of Government Rule of Law	
5.1.12.A.	Analyze the sources, purposes, functions of law, and how the rule of law protects individual rights and promotes the common good.	
		Article I: Congress Article II: The Presidency Article III: The Courts English Influences on Government Extending Voting Rights The Bill of Rights The Fourteenth Amendment The Origins of Democracy Your Rights: Due Process Your Rights: Freedom of Expression Your Rights: Freedom of Religion Your Rights: Personal Privacy Your Rights: Trials and Punishments
	Laws and Government	
5.1.12.B.	Employ historical examples and political philosophy to evaluate the major arguments advanced for the necessity of government.	
		English Influences on Government Introduction to Government The Enlightenment The Origins of Democracy Types of Governments
	Principles and Ideals that Shape Government	
5.1.12.C.	Evaluate the application of the principles and ideals in contemporary civic life.	
5.1.12.C.1.	Liberty / Freedom	
		Article II: The Presidency Article III: The Courts English Influences on Government Federalism in the Constitution Federalists and Anti-Federalists Introduction to Government Principles and the Preamble The Bill of Rights The Enlightenment The Federal Bureaucracy

Standard ID	Standard Text	Edgenuity Lesson Name
5.1.12.C.2.	Democracy	
		The Origins of Democracy
		Types of Governments
5.1.12.C.3.	Justice	
		Article II: The Presidency
		Article III: The Courts
		English Influences on Government
		Federalism in the Constitution
		Federalists and Anti-Federalists
		Introduction to Government
		Principles and the Preamble
		The Bill of Rights
		The Enlightenment
		The Federal Bureaucracy
5.1.12.C.4.	Equality	
		Extending Voting Rights
		Introduction to Government
		The Supreme Court and Civil Rights
	Documents and Ideals that Shape Pennsylvania and US Government	
5.1.12.D.	Evaluate state and federal powers based on significant documents and other critical sources.	
5.1.12.D.1.	Declaration of Independence	
		The Declaration of Independence
5.1.12.D.2.	United States Constitution	
		Article I: Congress
		Article II: The Presidency
		Article III: The Courts
		Article IV-VII: The Role of the Constitution
		Federalism in the Constitution
		Principles and the Preamble
5.1.12.D.3.	Bill of Rights	
		The Bill of Rights
		Your Rights: Due Process
		Your Rights: Freedom of Expression
		Your Rights: Freedom of Religion
		Your Rights: Personal Privacy
		Your Rights: Trials and Punishments

Standard ID	Standard Text	Edgenuity Lesson Name
	Individual Rights	
5.1.12.E.	Analyze and assess the rights of people as written in the PA Constitution and the US Constitution.	
		The Bill of Rights The Fourteenth Amendment The Supreme Court and Civil Rights Your Rights: Due Process Your Rights: Freedom of Expression Your Rights: Freedom of Religion Your Rights: Personal Privacy Your Rights: Trials and Punishments
	Symbols	
5.1.12.F.	Evaluate the role of nationalism in uniting and dividing citizens.	
5.2.12.	Rights and Responsibilities of Citizenship Civics Rights and Responsibilities	
5.2.12.A.	Evaluate an individual's civil rights, responsibilities and obligations in various contemporary governments.	
		A Citizen's Responsibilities Introduction to Government The Bill of Rights The Fourteenth Amendment Voting Your Rights: Due Process Your Rights: Freedom of Expression Your Rights: Freedom of Religion Your Rights: Personal Privacy Your Rights: Trials and Punishments
	Conflict and Resolution	
5.2.12.B.	Examine the causes of conflicts in society and evaluate techniques to address those conflicts.	
		Foreign Policy National Security Policy
	Leadership and Public Service	
5.2.12.C.	Evaluate political leadership and public service in a republican form of government.	
		A Citizen's Responsibilities Article II: The Presidency Campaigns and Elections The Presidency and Its Powers

Standard ID	Standard Text	Edgenuity Lesson Name
	Competent and Responsible Citizens	
5.2.12.D.	Evaluate and demonstrate what makes competent and responsible citizens.	A Citizen's Responsibilities Voting
5.3.12.	How Government Works Branches of Government	
5.3.12.A.	Analyze the changes in power and authority among the three branches of government over time.	Article I: Congress Article II: The Presidency Article III: The Courts Article IV-VII: The Role of the Constitution Federalists and Anti-Federalists The Federal Bureaucracy The House of Representatives The Judicial Branch The Presidency and Its Powers The Senate The Supreme Court and the Role of Government
	Structure, Organization, and Operation of Governments	
5.3.12.B.	Compare and contrast policymaking in various contemporary world governments.	Article I: Congress Introduction to Government The House of Representatives The Senate Types of Governments
	Government Services	
5.3.12.C.	Evaluate how government agencies create, amend, and enforce regulations.	Regulatory Policy The Federal Bureaucracy
	Leadership and Political Elections	
5.3.12.D.	Evaluate the roles of political parties, interest groups, and mass media in politics and public policy.	Creating Public Policy Fiscal Policy Foreign Policy Global Economic Policy Interest Groups and Lobbying National Security Policy Political Parties

Standard ID	Standard Text	Edgenuity Lesson Name
5.3.12.D.	Evaluate the roles of political parties, interest groups, and mass media in politics and public policy. *(Cont'd.)*	Regulatory Policy The Media and Politics
	Elements of the Election Process	
5.3.12.E.	Evaluate the fairness and effectiveness of the United States electoral processes, including the electoral college.	Campaigns and Elections Voting
	Conflict and the Court System	
5.3.12.F.	Analyze and assess the rights of people as written in the PA Constitution and the US Constitution. Analyze landmark United States Supreme Court interpretations of the Constitution and its Amendments.	Extending Voting Rights The Supreme Court and Civil Rights The Supreme Court and the Role of Government Your Rights: Due Process Your Rights: Personal Privacy Your Rights: Trials and Punishments
	Interest Groups	
5.3.12.G.	Evaluate the impact of interest groups in developing public policy.	Creating Public Policy Interest Groups and Lobbying
	Media Influences	
5.3.12.H.	Evaluate the role of mass media in setting public agenda and influencing political life.	Campaigns and Elections Creating Public Policy The Media and Politics
	Taxes	
5.3.12.I.	Evaluate tax policies of various states and countries.	Fiscal Policy
	Systems of Government	
5.3.12.J.	Evaluate critical issues in various contemporary governments.	Foreign Policy Global Economic Policy National Security Policy Types of Governments

Standard ID	Standard Text	Edgenuity Lesson Name
5.4.12.	How International Relationships Function Countries and Conflicts	
5.4.12.A.	Examine foreign policy perspectives, including realism, idealism, and liberalism.	Foreign Policy
	Tools of Foreign Policy	
5.4.12.B.	Evaluate the effectiveness of foreign policy tools in various current issues confronting the United States (e.g., diplomacy, economic aid, military aid, sanctions, treaties).	Foreign Policy Global Economic Policy
	International Organizations	
5.4.12.C.	Evaluate the effectiveness of international organizations, both governmental and nongovernmental.	Foreign Policy
	Media and its Influence	
5.4.12.D.	Evaluate the role of mass media in world politics.	The Media and Politics
	How Foreign Policy is Influenced	
5.4.12.E.	Compare and contrast the politics of various interest groups and evaluate their impact on foreign policy.	Foreign Policy Interest Groups and Lobbying
	PA Core Standards for Reading for History and Social Studies	
PA.CC.8.5.11-12.	Reading Informational Text: Students read, understand, and respond to informational text - with emphasis on comprehension, making connections among ideas and between texts with focus on textual evidence. Key Ideas and Details	
CC.8.5.11-12.A.	Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.	The Declaration of Independence The Origins of Democracy
CC.8.5.11-12.B.	Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.	The Declaration of Independence The Origins of Democracy
CC.8.5.11-12.C.	Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.	The Origins of Democracy

Standard ID	Standard Text	Edgenuity Lesson Name
	Craft and Structure	
CC.8.5.11-12.D.	Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).	Introduction to Government The Enlightenment
CC.8.5.11-12.E.	Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.	Principles and the Preamble The Declaration of Independence
CC.8.5.11-12.F.	Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.	Federalists and Anti-Federalists The Declaration of Independence The Enlightenment
	Integration of Knowledge and Ideas	
CC.8.5.11-12.G.	Integrate and evaluate multiple sources of information presented in diverse formats and media e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.	The House of Representatives Voting
CC.8.5.11-12.H.	Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.	Federalists and Anti-Federalists Your Rights: Due Process Your Rights: Freedom of Expression Your Rights: Freedom of Religion Your Rights: Personal Privacy Your Rights: Trials and Punishments
CC.8.5.11-12.I.	Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.	Political Parties The Enlightenment

Standard ID	Standard Text	Edgenuity Lesson Name
	Range and Level of Complex Texts	
CC.8.5.11-12.J.	By the end of grade 12, read and comprehend history/social studies texts in the grades 11-CCR text complexity band independently and proficiently.	A Citizen's Responsibilities Article I: Congress Article II: The Presidency Article III: The Courts Article IV-VII: The Role of the Constitution Campaigns and Elections Creating Public Policy English Influences on Government Extending Voting Rights Federalism in the Constitution Federalists and Anti-Federalists Fiscal Policy Foreign Policy Global Economic Policy Interest Groups and Lobbying Introduction to Government National Security Policy Political Parties Principles and the Preamble Regulatory Policy The Bill of Rights The Declaration of Independence The Enlightenment The Federal Bureaucracy The Fourteenth Amendment The House of Representatives The Judicial Branch The Media and Politics The Origins of Democracy The Presidency and Its Powers The Senate The Supreme Court and Civil Rights The Supreme Court and the Role of Government Types of Governments Voting Your Rights: Due Process Your Rights: Freedom of Expression Your Rights: Freedom of Religion

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.5.11-12.J.	By the end of grade 12, read and comprehend history/social studies texts in the grades 11-CCR text complexity band independently and proficiently. *(Cont'd.)*	Your Rights: Personal Privacy Your Rights: Trials and Punishments
PA.CC.8.6.11-12.	Writing: Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.	
	Text Types and Purposes	
CC.8.6.11-12.A.	Write arguments focused on discipline-specific content.	
CC.8.6.11-12.A.1.	Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.	Case Study: Proposing Education Policy Solutions
CC.8.6.11-12.A.2.	Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.	Case Study: Proposing Education Policy Solutions
CC.8.6.11-12.A.3.	Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.	Case Study: Proposing Education Policy Solutions
CC.8.6.11-12.A.4.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	Case Study: Proposing Education Policy Solutions
CC.8.6.11-12.A.5.	Provide a concluding statement or section that follows from or supports the argument presented.	Case Study: Proposing Education Policy Solutions
CC.8.6.11-12.B.	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	
CC.8.6.11-12.B.1.	Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	Types of Governments
CC.8.6.11-12.B.2.	Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.	Types of Governments

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.6.11-12.B.3.	Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.	Types of Governments
CC.8.6.11-12.B.4.	Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.	Types of Governments
CC.8.6.11-12.B.5.	Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).	Types of Governments
	Production and Distribution of Writing	
CC.8.6.11-12.C.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Case Study: Proposing Education Policy Solutions Types of Governments
CC.8.6.11-12.D.	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	Case Study: Proposing Education Policy Solutions
CC.8.6.11-12.E.	Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.	Case Study: Proposing Education Policy Solutions Types of Governments
	Research to Build and Present Knowledge	
CC.8.6.11-12.F.	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	Case Study: Proposing Education Policy Solutions
CC.8.6.11-12.G.	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	Case Study: Proposing Education Policy Solutions
CC.8.6.11-12.H.	Draw evidence from informational texts to support analysis, reflection, and research.	Case Study: Proposing Education Policy Solutions

Standard ID	Standard Text	Edgenuity Lesson Name
	Range of Writing	
CC.8.6.11-12.I.	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	Case Study: Proposing Education Policy Solutions Types of Governments

Unit	Lesson	Lesson Objectives
Introduction to American Government		
	Introduction to Government	
		Explain the roles and responsibilities of citizenship.
		Identify different structures of government.
		Describe the purposes and functions of government.
	Types of Governments	
		Describe the features of oligarchies and autocracies.
		Explore the advantages and disadvantages of different types of democracy.
		Identify the differences between federal, confederal, and unitary systems of government.
	The Origins of Democracy	
		Explain the effect of Judeo-Christian laws and ideals on principles of government.
		Explore the influence of the structure of the Athenian democracy and the Roman republic.
	English Influences on Government	
		Explain how English governing documents have limited government powers.
		Identify examples of how English governing documents have provided rights for citizens.
		Understand how English documents have influenced our understanding of the law.
	The Enlightenment	
		Describe the goals of the Enlightenment.
		Identify Enlightenment ideas that created a new understanding of the role of government and the rights of citizens.
	The Declaration of Independence	
		Analyze the actions taken by the Declaration of Independence.
		Examine early colonial events that led to the need for a declaration.
		Identify the key principles contained in the Declaration of Independence.
The Constitution		
	Principles and the Preamble	
		Analyze the purposes and functions of the government as stated in the Preamble.
		Explain what the Constitution specifies about the role and structure of government.
	Federalism in the Constitution	
		Define the role and purpose of federalism.
		Differentiate between types of state and federal powers.
	Article I: Congress	
		Analyze the role of the Necessary and Proper Clause in establishing implied powers for Congress.
		Describe the structure of Congress as organized by Article I of the Constitution.
		Identify the expressed powers of Congress.

Unit	Lesson	Lesson Objectives
	Article II: The Presidency	
		Analyze the powers and duties of the President.
		Describe the structure of the executive branch as outlined by Article II of the Constitution.
	Article III: The Courts	
		Analyze the powers given to the judicial branch.
		Identify the structure of the judicial branch created by Article III of the Constitution.
	Article IV-VII: The Role of the Constitution	
		Describe the process of amending the Constitution.
		Describe the process of ratification.
		Examine the meaning of the Supremacy Clause.
		Identify the powers and requirements given to the states by Article IV.
	Federalists and Anti-Federalists	
		Explain the reasons for Federalist support of ratification.
		Identify Anti-Federalist objections to the Constitution.
	The Supreme Court and the Role of Government	
		Analyze how Gibbons v. Ogden expanded the idea of federal supremacy.
		Describe how McCulloch v. Maryland affected the powers of the federal government.
		Explain how Marbury v. Madison established the principle of judicial review.
Civil Rights and Liberties		
	The Bill of Rights	
		Describe the purpose of each of the ten amendments in the Bill of Rights.
		Explain how the Bill of Rights establishes civil liberties.
	Your Rights: Freedom of Religion	
		Analyze Court decisions concerning the First Amendment's establishment clause.
		Describe the purpose and language of the First Amendment.
	Your Rights: Freedom of Expression	
		Define the political rights of freedom of speech, press, and assembly.
		Explain the limits placed on First Amendment rights and the reasons why these limits are in place.
	Your Rights: Due Process	
		Analyze Supreme Court interpretations of the Fourth and Fifth Amendments.
		Describe the rights of the accused as found in the Fourth and Fifth Amendments.
	Your Rights: Trials and Punishments	
		Analyze how Supreme Court decisions created new interpretations of the Sixth and Eighth Amendments.
		Identify the rights of the accused as defined by the Sixth and Eighth Amendments.

Unit	Lesson	Lesson Objectives
	Your Rights: Personal Privacy	
		Analyze the effects of major Supreme Court cases related to privacy rights.
		Define an individual's right to privacy and the limits to that right.
		Explain how the Ninth Amendment guarantees the unenumerated rights of the people.
	The Fourteenth Amendment	
		Analyze the importance of the Fourteenth Amendment in incorporating the Bill of Rights.
		Describe the civil rights protections created by the Fourteenth Amendment.
	The Supreme Court and Civil Rights	
		Analyze the ways the Constitution protects and limits the rights and powers of both government and individuals.
		Describe major Supreme Court cases involving Fourteenth Amendment Rights.
		Explain how the Supreme Court has reinterpreted civil rights over time.
	Extending Voting Rights	
		Examine the effects of the Civil Rights Act and Voting Rights Act of the 1960s.
		Explain how the Fifteenth Amendment extended voting rights to African Americans.
		Summarize the contents of the Nineteenth and Twenty-Sixth Amendments.
Government Institutions		
	The House of Representatives	
		Describe the structure of the House of Representatives.
		Explain the function of the House of Representatives and what its members do.
		List the powers granted to the House of Representatives and the limits to those powers.
	The Senate	
		Describe the structure of the Senate.
		Explain the function of the Senate and what its members do.
		List the powers granted to the Senate and the limits to those powers.
	The Presidency and Its Powers	
		Describe the president's duties and roles.
		Discuss the president's powers and how they have been challenged or changed over time.
		Identify the structure and purpose of the office of president.
	The Federal Bureaucracy	
		Describe the role of independent agencies in the executive branch.
		Explain the functions and duties of executive departments.
		Identify the role of the cabinet in leading the executive bureaucracy.

Unit	Lesson	Lesson Objectives
	The Judicial Branch	
		Describe the organization of the federal and state court systems.
		Explain the basics of the legal process.
Civics and Participation		
	A Citizen's Responsibilities	
		Define citizen and the different types of citizenship status.
		Describe the requirements and responsibilities of citizens.
		List the qualities of a model citizen.
	Political Parties	
		Analyze how political parties govern.
		Describe the rise and transformation of political parties.
		Explain how political parties are organized.
	Campaigns and Elections	
		Describe how campaigns are structured, held, and funded.
		Explain the primary and election process.
	Voting	
		Analyze voter turnout trends.
		Describe the process of voting.
		Explain issues surrounding the creation of voting districts.
	Interest Groups and Lobbying	
		Describe the purpose and influence of interest groups and public action committees.
		Examine the function and influence of lobbyists.
	The Media and Politics	
		Describe the ways media sources influence elections and the creation of policy.
		Examine the ways politicians use the media to communicate a message.
Public Policy		
	Creating Public Policy	
		Define public policy.
		Describe influences on the creation of public policy.
		Identify the ways public policy is made.
	Fiscal Policy	
		Analyze the government's main sources of expenditure.
		Describe the main sources of government funding on the federal, state, and local levels.
		Identify the purpose of taxation and its relation to public policy.

Unit	Lesson	Lesson Objectives
	Regulatory Policy	
		Distinguish between regulatory policy actions that establish financial and safety regulations.
		Explain why governments establish regulatory policy.
		Identify government agencies that create regulatory policy.
	Foreign Policy	
		Describe how foreign policy is created and the factors influencing its creation.
		Examine the role and influence of international governmental and nongovernmental organizations.
		Identify the ways foreign policy is implemented and its impact.
	National Security Policy	
		Analyze the role of US military forces in ensuring national security and instigating global change.
		Examine the way economic interests have influenced US foreign policy decisions.
		Identify the effects of multilateral aid efforts involving the United States.
	Global Economic Policy	
		Describe economic foreign policy and why it is necessary.
		Examine the use of trade agreements, tariffs, sanctions, and aid in implementing policy.
	Case Study: Proposing Education Policy Solutions	
		Develop a policy to solve the issue.
		Explore a major issue in education.
		Write a opening statement for a candidate about the issue.

Standard ID	Standard Text	Edgenuity Lesson Name
PA.6.12.	**Economics**	
6.1.12.	Scarcity and Choice	
	Scarcity and Choice	
6.1.12.A.1	Predict the long-term consequences of decisions made because of scarcity.	
		Resources and Scarcity
	Limited Resources	
6.1.12.B.1	Evaluate the economic reasoning behind a choice.	
		Resources and Scarcity The Three Questions of Economics
6.1.12.B.2	Evaluate effective allocation of resources for the production of goods and services.	
		Resources and Scarcity The Three Questions of Economics
	Opportunity Costs	
6.1.12.C.1	Analyze the opportunity cost of decisions made by individuals, businesses, communities, and nations.	
		Opportunity Cost
	Incentives and Choice	
6.1.12.D.1	communities, and nations.	
		Elasticity and Incentives
6.2.12.	Markets and Economic Systems	
	Goods and Services	
6.2.12.A.1	Evaluate the flow of goods and services in an international economy.	
		Currencies and Exchange Rates Globalization International Trade
	Market Competition	
6.2.12.B.1	Analyze the effect of changes in the level of competition in different markets.	
		Comparative and Absolute Advantage Competition and Free Enterprise Market Structures and Competition
	Advertising and Media	
6.2.12.C.	Predict and evaluate how media affects markets.	
	Price Determination	
6.2.12.D.1	Predict how changes in supply and demand affect equilibrium price and quantity sold.	
		Determining Market Price Elasticity and Incentives The Law of Demand The Law of Supply

Standard ID	Standard Text	Edgenuity Lesson Name
	Economic Health	
6.2.12.E.1	Evaluate the health of an economy (local, regional, national, global) using economic indicators.	Economic Development Economic Growth Introduction to Macroeconomics
	Private Economic Institutions	
6.2.12.F.1	Evaluate the impact of private economic institutions on the individual, the national and the international economy.	Banking Business Structures Credit and Loans Entrepreneurship Investing and Financial Markets Labor The Business Cycle
	Economic Systems	
6.2.12.G.1	Evaluate various economic systems.	Economic Systems Economic Systems and Daily Life
6.3.12.	Functions of Government Goods and Services	
6.3.12.A.1	Evaluate the costs and benefits of government decisions to provide public goods and services.	Economic Growth Fiscal Policy: Spending
	Government Involvement in the Economy	
6.3.12.B.1	Assess the government's role in regulating and stabilizing the state and national economy.	Economic Growth Economic Policy: Influential Theories Fiscal Policy: Spending Monetary Policy: The Federal Reserve Regulatory Policy
	Taxation	
6.3.12.C.1	Evaluate the social, political, and economic costs/benefits of potential changes to taxation policies.	Fiscal Policy: Taxes

Standard ID	Standard Text	Edgenuity Lesson Name
	Government's Role in International Trade	
6.3.12.D.1	Evaluate the role that governments play in international trade.	Currencies and Exchange Rates International Trade Trade Agreements Trade Barriers
6.4.12.	Economic Interdependence Specialization	
6.4.12.A.1	Evaluate the comparative advantage of nations in the production of goods and services.	International Trade
	Trade	
6.4.12.B.1	Assess the growth and impact of international trade around the world.	Globalization International Trade Trade Agreements
	Multinational and Non-Governmental Organizations	
6.4.12.C.1	Evaluate the impact of multinational corporations and other non-government organizations.	Economic Development Globalization Trade Agreements
	Factors Contributing to Economic Interdependence	
6.4.12.D.1	Analyze how changes in transportation, communication networks, and technology affect economic interdependence around the world in the 21st century.	Globalization Technology and Economics
6.5.12.	Income, Profit, and Wealth Factors Influencing Wages	
6.5.12.A.1	Analyze the factors influencing wages.	Elasticity and Incentives Employment and Education Labor
	Labor Productivity	
6.5.12.B.1	Evaluate how changes in education, incentives, technology, and capital investment alter productivity.	Economic Development Employment and Education Labor Technology and Economics

Standard ID	Standard Text	Edgenuity Lesson Name
	Types of Businesses	
6.5.12.C.1	Analyze the costs and benefits of organizing a business as a sole proprietorship, partnership, or corporation.	Business Structures
	Profits and Losses	
6.5.12.D.1	Analyze the role of profits and losses in the allocation of resources in a market economy.	Profit
	Distribution of Wealth	
6.5.12.E.1	Compare distribution of wealth across nations.	Economic Development
	Entrepreneurship	
6.5.12.F.1	Assess the impact of entrepreneurs on the economy.	Entrepreneurship
	Costs and Benefits of Saving	
6.5.12.G.1	Analyze the risks and returns of various investments.	Investing and Financial Markets
	Interest Rates	
6.5.12.H.1	Evaluate benefits and costs of changes in interest rates for individuals and society.	Credit and Loans Inflation and Stagflation
	PA Core Standards for Reading for History and Social Studies	
PA.CC.8.5.11-12.	Reading Informational Text: Students read, understand, and respond to informational text - with emphasis on comprehension, making connections among ideas and between texts with focus on textual evidence.	
	Key Ideas and Details	
RH.11-12.1.	Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.	Market Structures and Competition The Three Questions of Economics Trade Barriers
RH.11-12.2.	Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.	Market Structures and Competition The Three Questions of Economics Trade Barriers
RH.11-12.3.	Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.	Inflation and Stagflation (continued)

Standard ID	Standard Text	Edgenuity Lesson Name
	Craft and Structure	
RH.11-12.4.	Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).	Inflation and Stagflation
RH.11-12.5.	Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.	Inflation and Stagflation (continued)
RH.11-12.6.	Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.	Inflation and Stagflation (continued)
	Integration of Knowledge and Ideas	
RH.11-12.7.	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.	Elasticity and Incentives Fiscal Policy: Taxes Labor Profit
RH.11-12.8.	Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.	Entrepreneurship
RH.11-12.9.	Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.	Monetary Policy: The Federal Reserve
	Range and Level of Complex Texts	
RH.11-12.10.	By the end of grade 12, read and comprehend history/social studies texts in the grades 11-12 text complexity band independently and proficiently.	Fiscal Policy: Spending Inflation and Stagflation Market Structures and Competition The Three Questions of Economics Trade Barriers

Standard ID	Standard Text	Edgenuity Lesson Name
PA.CC.8.6.11-12.	Writing: Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content. Text Types and Purposes	
CC.8.6.11-12.A.	Write arguments focused on discipline-specific content.	
WHST.11-12.1(a)	Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.	Competition and Free Enterprise Entrepreneurship Writing Workshop: The Importance of Free Enterprise
WHST.11-12.1(b)	Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.	Competition and Free Enterprise Entrepreneurship Writing Workshop: The Importance of Free Enterprise
WHST.11-12.1(c)	Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.	Competition and Free Enterprise Entrepreneurship Writing Workshop: The Importance of Free Enterprise
WHST.11-12.1(d)	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	Competition and Free Enterprise Entrepreneurship Writing Workshop: The Importance of Free Enterprise
WHST.11-12.1(e)	Provide a concluding statement or section that follows from or supports the argument presented.	Competition and Free Enterprise Entrepreneurship Writing Workshop: The Importance of Free Enterprise

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.6.11-12.B.	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	
WHST.11-12.2(a)	Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	Globalization Investing and Financial Markets Writing Workshop: The Effects of Globalization
WHST.11-12.2(b)	Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.	Globalization Investing and Financial Markets Writing Workshop: The Effects of Globalization
WHST.11-12.2(c)	Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.	Globalization Investing and Financial Markets Writing Workshop: The Effects of Globalization
WHST.11-12.2(d)	Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.	Globalization Investing and Financial Markets Writing Workshop: The Effects of Globalization
WHST.11-12.2(e)	Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).	Globalization Investing and Financial Markets Writing Workshop: The Effects of Globalization
WHST.11-12.3(a)	Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historical import.	Competition and Free Enterprise Entrepreneurship Globalization

Standard ID	Standard Text	Edgenuity Lesson Name
	Production and Distribution of Writing	
WHST.11-12.4.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Entrepreneurship Writing Workshop: The Effects of Globalization Writing Workshop: The Importance of Free Enterprise
WHST.11-12.5.	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	Entrepreneurship Writing Workshop: The Effects of Globalization Writing Workshop: The Importance of Free Enterprise
WHST.11-12.6.	Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.	Entrepreneurship Writing Workshop: The Effects of Globalization Writing Workshop: The Importance of Free Enterprise
	Research to Build and Present Knowledge	
WHST.11-12.7.	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	Globalization Investing and Financial Markets Writing Workshop: The Effects of Globalization Writing Workshop: The Importance of Free Enterprise
WHST.11-12.8.	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	Globalization Investing and Financial Markets Writing Workshop: The Effects of Globalization Writing Workshop: The Importance of Free Enterprise

Standard ID	Standard Text	Edgenuity Lesson Name
WHST.11-12.9.	Draw evidence from informational texts to support analysis, reflection, and research.	Globalization Investing and Financial Markets Writing Workshop: The Effects of Globalization Writing Workshop: The Importance of Free Enterprise
	Range of Writing	
WHST.11-12.10.	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	Competition and Free Enterprise Entrepreneurship Globalization Investing and Financial Markets Writing Workshop: The Effects of Globalization Writing Workshop: The Importance of Free Enterprise

Unit	Lesson	Lesson Objectives
Introduction to Economics		
	Resources and Scarcity	
		Analyze the role of scarcity in determining how resources are allocated.
		Explain the difference between exhaustible and renewable resources.
	The Three Questions of Economics	
		Analyze the role of the factors of production in answering the three economic questions.
		Define the three questions of economics.
	Opportunity Cost	
		Analyze production possibility schedules and production possibility curves.
		Define opportunity cost and its role within the market.
	Economic Systems	
		Compare types of governments and the economic markets that thrive within them.
		Describe major types of economic markets.
		Explain the role that economic markets play in citizens' daily lives.
	Economic Systems and Daily Life	
		Define ownership, property rights, income, wealth, and employment in the lives of citizens.
		Explain the challenges that various markets face, including unemployment and the wealth gap.
	Competition and Free Enterprise	
		Analyze the regulations that are placed on free enterprise.
		Define the concept of free enterprise.
		Explain how free enterprise and competition work together.
	Technology and Economics	
		Analyze how technology has changed economic problem solving and planning.
		Describe how changing technology has influenced production and consumption.
	Writing Workshop: The Importance of Free Enterprise	
		Create an outline in response to an argumentative essay prompt.
		Revise and finalize an argumentative essay.
		Write a draft of an argumentative essay about the importance of free enterprise.
Microeconomics		
	The Law of Demand	
		Discover the law of demand.
		Explain what factors influence changes in demand.
		Explore changes in demand.

Unit	Lesson	Lesson Objectives
	The Law of Supply	
		Analyze ways to measure changes in supply.
		Define the law of supply.
		Describe the factors that influence supply.
	Determining Market Price	
		Analyze how excess supply and excess demand can be caused by disequilibrium.
		Explain how market equilibrium is achieved.
	Elasticity and Incentives	
		Analyze how price floors and price ceilings are determined.
		Define elasticity and its influence on consumer behavior.
		Identify incentives for consumers and producers within the market.
	Profit	
		Analyze how profits can be maximized.
		Compare marginal cost and marginal revenue.
		Explain the difference between profit and revenue.
	Comparative and Absolute Advantage	
		Analyze how understanding absolute and comparative advantage helps producers.
		Determine when a producer has the comparative advantage.
		Explain when a producer has the absolute advantage.
	Market Structures and Competition	
		Analyze the impact of monopolistic and pure competition within the market.
		Define monopolies and their impact on the market.
		Explain how oligopolies function.
Macroeconomics and Financial Options		
	Introduction to Macroeconomics	
		Analyze the circular flow model.
		Describe the concepts that shape macroeconomics.
		Explain how macroeconomics examines aggregate demand and supply.
	Economic Growth	
		Analyze ways to influence economic growth.
		Describe unemployment rates and types of unemployment.
		Explain how gross domestic product can be used to analyze economic growth.

Unit	Lesson	Lesson Objectives
	The Business Cycle	
		Analyze the role of the business cycle within the market.
		Compare the four stages of the business cycle.
		Examine factors that influence the business cycle.
	Inflation and Stagflation	
		Analyze historical examples of inflation and stagflation.
		Compare and contrast inflation and stagflation.
		Describe the effects of inflation on the economy.
		Explain the causes and effects of inflation and stagflation.
	Inflation and Stagflation (continued)	
	Banking	
		Analyze the effects of interest rates on profits and economic growth.
		Explain the role of banks within the market.
		Identify the functions of banks, including central banks.
	Investing and Financial Markets	
		Describe common types of investments.
		Explain the risks and returns involved in making investments.
		Understand how financial markets reflect economic growth.
	Credit and Loans	
		Analyze the importance of using credit wisely.
		Describe the types of credit that are available to borrowers.
		Explain how simple and compound interest accumulate over time.
Business and Government		
	Fiscal Policy: Spending	
		Analyze how government budgets influence the economy.
		Describe the categories of spending in the federal budget.
		Identify the goals of government spending.
	Fiscal Policy: Taxes	
		Analyze the effects of differing levels of taxation on the economy.
		Differentiate between approaches to taxation.
		Identify the types of taxes collected by federal, state, and local governments.

Unit	Lesson	Lesson Objectives
	Monetary Policy: The Federal Reserve	
		Describe the tools used by the Federal Reserve to influence the money supply.
		Explain the role of the Federal Reserve in the economy.
		Identify the goals of monetary policy.
	Regulatory Policy	
		Describe how regulatory agencies institute safety.
		Explain how regulatory agencies uphold fair business practices.
		Explain why government regulation is necessary in a mixed-market economy.
	Economic Policy: Influential Theories	
		Describe the fundamental policy principles of Keynesian economics.
		Examine the theories of Friedrich Hayek and Milton Friedman.
		Explain the contributions of Adam Smith to classical economic theory.
	Labor	
		Analyze the labor market today.
		Describe the development of labor unions after the Industrial Revolution.
		Explain the development of labor regulations in the United States.
	Business Structures	
		Describe the differences between sole proprietorships and partnerships.
		Explain the benefits and disadvantages to starting a corporation.
		Identify the reasons for starting a franchise or a cooperative.
	Entrepreneurship	
		Describe the role of entrepreneurs in various markets.
		Examine the benefits and risks of entrepreneurship.
		Identify the characteristics of an entrepreneur.
	Employment and Education	
		Analyze factors to consider when choosing a job.
		Describe different ways to pay for post-secondary education.
		Explain the factors that must be considered when choosing a career.
		Identify the costs involved with post-secondary education.

Unit	Lesson	Lesson Objectives
The Global Economy		
	International Trade	
		Describe the concept of international trade.
		Explain the differences and connections between absolute and comparative advantage.
		Identify reasons that countries specialize in the production of specific goods.
	Currencies and Exchange Rates	
		Analyze how exchange rates influence the global economy.
		Describe why nations use different currencies.
		Explain how exchange rates work.
	Globalization	
		Analyze the effects of globalization on countries, companies, and consumers.
		Define the concept of globalization.
		Explain how the growth of the global economy can be measured.
	Trade Barriers	
		Explain how trade barriers create financial incentives for countries to invest domestically.
		Explain how trade barriers create limitations on imports through embargoes, standards, and quotas.
	Trade Agreements	
		Analyze the economic and social consequences of free trade.
		Describe influential trade agreements and organizations, including the WTO and NAFTA.
		Identify the purposes of creating trade agreements.
	Economic Development	
		Analyze the issues facing developed economies.
		Describe the changes taking place in developing economies.
		Identify measurements that indicate the level of development in an economy.
	Writing Workshop: The Effects of Globalization	
		Create an outline in response to an informative essay prompt.
		Revise and finalize an informative essay.
		Write a draft of an informative essay about globalization in China.

Standard ID	Standard Text	Edgenuity Lesson Name
PA.7.9.	Geography	
7.1.9.	Basic Geographic Literacy	
	Geographic Tools	
7.1.9.A.	Explain and illustrate how geographic tools are used to organize and interpret information about people, places, and environments.	
		Thinking Geographically
		Geographic Concepts
		Working with Maps and Data in Geography
		Evolution of Geographic Theories and Ideas
		Understanding Physical Geography
	Location of Places and Regions	
7.1.9.B.	Explain and locate regions and their shared connections as defined by physical and human features.	
		Physical Geography of the US and Canada
		Cultural Geography of the US and Canada
		Physical Geography of Latin America
		Cultural Geography of Latin America
		Physical Geography of Europe
		Cultural Geography of Europe
		Physical Geography of Africa
		Cultural Geography of Africa
		Physical Geography of the Middle East
		Cultural Geography of the Middle East
		Physical Geography of Asia
		Cultural Geography of Asia
		Physical Geography of Oceania and Antarctica
		Cultural Geography of Oceania and Antarctica
		Altering the Environment
		Greening the Globe

Standard ID	Standard Text	Edgenuity Lesson Name
7.2.9.	Physical Characteristics of Places and Regions Physical Characteristics	
7.2.9.A.	Explain the physical characteristics of places and regions, including spatial patterns of Earth's physical systems.	
		Physical Geography of the US and Canada
		Physical Geography of Latin America
		Physical Geography of Europe
		Physical Geography of Africa
		Physical Geography of the Middle East
		Physical Geography of Asia
		Physical Geography of Oceania and Antarctica
	Physical Processes	
7.2.9.B.	Explain the dynamics of the fundamental processes that underlie the operation of Earth's physical systems.	
		Understanding Physical Geography
		Physical Geography of the US and Canada
		Physical Geography of Latin America
		Physical Geography of Europe
		Physical Geography of Asia
		Physical Geography of Oceania and Antarctica
		Greening the Globe
		Agri-Zones: Regions of Production
		Modern Agriculture: Changing Landscapes
7.3.9.	Human Characteristics of Places and Regions Human Characteristics	
7.3.9.A.	Explain the human characteristics of places and regions using the following criteria:	
7.3.9.A.1.	Population	
		Population Distribution
		Recognizing Population Patterns and Historical Trends
		Patterns of Fertility and Mortality
		Politics, Policies, and Population
		Challenges Facing the Modern Urban Space

Standard ID	Standard Text	Edgenuity Lesson Name
7.3.9.A.2.	Culture	
		Cultural Geography of the US and Canada Cultural Geography of Latin America Cultural Geography of Europe Cultural Geography of Africa Cultural Geography of the Middle East Cultural Geography of Asia Cultural Geography of Oceania and Antarctica Exploring Culture: Concepts of Culture Exploring Culture: World Religions Exploring Culture: Diffusion of Religion Exploring Culture: Language Exploring Culture: Race, Ethnicity, and Gender The Environment: Shaping Cultures Geographer's Perspective: The Influence of Boundaries on Culture Immigration and Urban Enclaves
7.3.9.A.3.	Settlement	
		Movement: Migration Immigration: Refugees and Asylees Economics of Migration The Environment: Shaping Cultures Early Agrarian Societies Revolutions in Agriculture Land Use: Settlement Patterns Agri-Zones: Regions of Production Agriculture: Products and Consumption Economic Factors of Agricultural Production Modern Agriculture: Changing Landscapes Changing Face of Farms Urban Planning and Design Transportation and Infrastructure in the Modern Space The Suburban Environment in the Modern Space Immigration and Urban Enclaves

Standard ID	Standard Text	Edgenuity Lesson Name
7.3.9.A.3.	Settlement *(Cont'd.)*	Race and Class in the City Comparative Urban Environments Global Cities Challenges Facing the Modern Urban Space
7.3.9.A.4.	Economic activities	Economics of Migration Altering the Environment Modern Global Concerns Agri-Zones: Regions of Production Agriculture: Products and Consumption Economic Factors of Agricultural Production Changing Face of Farms Changing Technology, Changing Agriculture Economic and Social Development Global Economic Sectors and Systems Barriers to Economic Growth Revolutions in Technology Financial Resources and Global Lending Gender and Economic Development Westernization and Commoditization Environmental Concerns of Industrialization Ethics of Industrialization Global Cities Challenges Facing the Modern Urban Space
7.3.9.A.5.	Political activities	Territory and Boundaries in Geography Geographer's Perspective: The Influence of Boundaries on Culture Geographer's Perspective: Types of Government and Political Systems Geography and Internal Boundaries Changing Geography: Colonialism Changing Geography: Changing Politics

Standard ID	Standard Text	Edgenuity Lesson Name
7.4.9.	Interactions Between People and the Environment Impact of Physical Systems on People	
7.4.9.A.	Compare and contrast the effect of the physical systems on people across regions of the United States.	The Environment: Shaping Cultures Changing Face of Farms Natural Resources and Economies of the US and Environmental Issues in the US and Canada
	Impact of People on Physical Systems	
7.4.9.B.	Compare and contrast the effect of people on the physical region across regions of the United States.	Transportation and Infrastructure in the Modern Space Natural Resources and Economies of the US and Environmental Issues in the US and Canada

Unit	Lesson	Lesson Objectives
Introduction to Geography		
	Thinking Geographically	
		Define geography and examine its various uses
		Identify the roles of perception, perspective, and scale in geography
	Geographic Concepts	
		Examine the Five Themes of Geography
		Identify the Six Essential Elements of Geography
	Working with Maps and Data in Geography	
		Differentiate among the most commonly used map projections
		Identify different types of maps, including climate, physical, and political, and identify their purposes
		Use coordinates of latitude and longitude to determine location
	Evolution of Geographic Theories and Ideas	
		Compare the theories of sequent occupance and cultural landscape
		Examine the different theories of land use and settlement
	Understanding Physical Geography	
		Compare the various climate zones and biomes found on Earth
		Explore the physical systems that shape Earth's surface
		Identify landforms and bodies of water commonly found on Earth's surface
Global Geography: The Americas		
	Physical Geography of the US and Canada	
		Analyze similarities and differences among different locations in the United States and Canada
		Describe the types of natural events and natural disasters that affect the United States and Canada
		Explain how natural resources are used to create industries in the United States and the environmental challenges they create
		Identify the major physical characteristics, climate regions, and ecosystems of the United States and Canada
	Cultural Geography of the US and Canada	
		Analyze the old world influences of Europe on modern identities in the US and Canada.
		Examine American culture and identify regional cultural differences.
		Explore Canadian culture and identify European and Aboriginal influences.
	Natural Resources and Economies of the US and Canada	
		Compare the economic systems found in the US and Canada
		Describe steps the US and Canada are taking to overcome challenges with energy resources
		Identify and locate natural resources in the US and Canada
		Investigate major economic sectors of the US and Canada, and identify geographic factors that influence their location

Unit	Lesson	Lesson Objectives
	Environmental Issues in the US and Canada	
		Examine the effects of logging and mining on the environment in Canada
		Identify ways that humans have modified the environment in the US and Canada
		Investigate the effects of air pollution and water pollution on the environment in the US
		Understand how growing cities have affected the environment in the US and Canada
	Physical Geography of Latin America	
		Analyze the challenges facing the Amazon Rainforest and identify ways people can help
		Explain which natural resources are important to various industries in Latin America and how they create environmental challenges
		Explore the major physical characteristics, climate regions, and ecosystems of Latin America
		Identify natural events and disasters that affect Latin America
	Cultural Geography of Latin America	
		Analyze the impact of European colonialism on Latin American ethnicity and religion
		Discover shared and diverse qualities of cultures in Latin America
		Examine significant events and developments in Latin America's history
Global Geography: Europe, Asia, and Oceania		
	Physical Geography of Europe	
		Analyze the effects of industrialization in Europe and the environmental challenges it has created
		Compare and contrast the major physical characteristics, climate regions, and ecosystems of Europe
		Identify natural events and disasters in Europe and explain how they affect and change the environment
	Cultural Geography of Europe	
		Examine significant events and developments in modern European history
		Explain how the European Union has created a new European culture
		Identify major European ethnic groups and explore their diverse cultural qualities
	Physical Geography of Asia	
		Describe the natural events and disasters that affect Asia
		Give examples of the industries, natural resources, and environmental challenges of Asia
		Identify the major climate regions and ecosystems of Asia
		Identify the major physical characteristics of Asia
	Cultural Geography of Asia	
		Compare and contrast cultures in eastern and southern Asia
		Discover elements of cultures throughout Asia
		Examine significant events and developments in Asian history.

Unit	Lesson	Lesson Objectives
	Physical Geography of Oceania and Antarctica	
		Examine why the physical geography of Antarctica attracts scientific study
		Identify the major physical characteristics, climate regions, and ecosystems of Australia, New Zealand, Antarctica, and the Pacific Islands
		Investigate the industries, natural resources, and environmental challenges of Oceania
	Cultural Geography of Oceania and Antarctica	
		Examine important aspects of the cultures, governments, and economies of Australia, New Zealand, and the Pacific Islands
		Examine the effects of culture and resource distribution on trade in the Pacific Island region
		Explore aspects of Aboriginal culture and examine the relationship between Aborigines and Australia's majority groups
		Identify the challenges New Zealand has faced in integrating Maori and European cultures
Global Geography: Africa and the Middle East		
	Physical Geography of Africa	
		Describe the major physical characteristics, climate regions, and ecosystems of Africa
		Give examples of the industries, natural resources, and environmental challenges in Africa
		Identify the natural events and disasters that occur in Africa
	Cultural Geography of Africa	
		Analyze the importance of the arts to the cultures of Central and West Africa
		Examine major culture groups of East and Southern Africa and discover important aspects of their cultures
		Explore the importance of Islam to the peoples of North Africa
		Identify aspects of African cultures and ways European and Asian cultures have become infused
	Physical Geography of the Middle East	
		Describe the major physical characteristics, climate regions, and ecosystems of the Middle East
		Give examples of the industries, natural resources, and environmental challenges in the Middle East
		Identify the natural events and disasters that occur in the Middle East
	Cultural Geography of the Middle East	
		Analyze the Israeli-Palestinian conflict and explain how it influences political relations in the Middle East and around the world
		Examine the role of religion in government and society in the Middle East
		Identify significant events and developments in Middle Eastern history
Human Geography: Population and Migration		
	Population Distribution	
		Identify and describe the four stages of demographic transition
		Identify sources of data used by geographers
		Interpret and compare demographic data and draw conclusions
		Understand methods geographers use to measure and represent population density

Unit	Lesson	Lesson Objectives
	Recognizing Population Patterns and Historical Trends	
		Examine historical patterns of human migration
		Explore historical trends of population distribution
		Identify global population distribution and reasons why it is concentrated in some areas and not in others
	Patterns of Fertility and Mortality	
		Analyze differences in the fertility and mortality rates of low-income versus high-income countries
		Define the terms fertility and mortality and understand their meanings in terms of demographics
		Understand the relevance of total fertility rate, mortality rate, and infant mortality rate
	Politics, Policies, and Population	
		Analyze the Swedish government's motivation for promoting population growth
		Identify economic, social, and environmental factors contributing to government population policies
	Movement: Migration	
		Contrast forced and voluntary migrations
		Differentiate between forms of human movement, including migration, cyclic movement, and periodic movement
		Evaluate reasons for voluntary and domestic migration
		Examine reasons for historical forced migrations
	Immigration: Refugees and Asylees	
		Analyze trends in the international migration of refugees
		Explore examples of migration due to political, economic, social, or environmental reasons
		Identify challenges facing refugees, their destination countries, and humanitarian aid organizations
	Economics of Migration	
		Analyze the socioeconomic consequences of migration
		Examine the impact of remittances on migrant workers' home nations
		Identify recent patterns of human migration for economic purposes
		Understand the impact of migrant workers on the economies of their country of employment
Human Geography: Culture and the Environment		
	Exploring Culture: Concepts of Culture	
		Differentiate between types of cultures, including popular culture, subculture, and local culture
		Examine the relationship between the environment and culture
		Identify the main components of culture
	Exploring Culture: World Religions	
		Compare and contrast the beliefs of Buddhism and Hinduism
		Compare and contrast the beliefs of Judaism, Christianity, and Islam
		Identify the five major world religions

Unit	Lesson	Lesson Objectives
	Exploring Culture: Diffusion of Religion	
		Examine the ways cultures have appropriated, diffused, and changed religions
		Explore the spread and diffusion of the major world religions
		Identify cultural conflicts based on religious differences
	Exploring Culture: Language	
		Examine the diffusion of languages
		Identify the world's language families and examine how a language family evolves
		Understand how language contributes to a region's cultural identity
	Exploring Culture: Race, Ethnicity, and Gender	
		Differentiate between gender-based systems of lineage and leadership in societies
		Differentiate between race and ethnicity and explore their roles in defining identity
		Understand the concept of identity and how identities are constructed
	The Environment: Shaping Cultures	
		Examine the effects of environmental diseases on specific cultures, and identify efforts to eradicate or control these diseases
		Explore the effects of environment on culture
		Identify environmental factors that contribute to settlement patterns, the establishment of settlements, and the formation of culture
	Altering the Environment	
		Analyze technologies humans have developed to survive and thrive in environments.
		Examine techniques that humans have used to physically alter the natural environment.
	Greening the Globe	
		Analyze the potential effects of climate change on environments and ecosystems
		Explore social and political trends in sustainable environmental planning
		Identify global and regional environmental concerns
Politics and Boundaries		
	Territory and Boundaries in Geography	
		Compare and contrast nations and states as political constructs
		Examine concepts in political geography and identify ways space is organized into states
		Examine how boundaries are created through physical geography, geometry, and conflict
	Geographer's Perspective: The Influence of Boundaries on Culture	
		Examine how boundaries influence the distribution of goods and services, the ways issues are confronted, and who is represented
		Explore the ways that boundaries influence identity, interaction, and exchange
		Identify issues created by territoriality and boundaries, both natural and artificial

Unit	Lesson	Lesson Objectives
	Geographer's Perspective: Types of Government and Political Systems	
		Differentiate among the types of states, including unitary and federal systems
		Identify and describe key forms of government
	Geography and Internal Boundaries	
		Differentiate between enclaves, exclaves, and territories as internal units
		Understand the types of internal boundaries including city, county, state, and federal
	Changing Geography: Colonialism	
		Differentiate among a territory, a colony, a commonwealth, and a dependency
		Differentiate between direct and indirect rule
		Identify periods of expansion throughout history
	Changing Geography: Changing Politics	
		Analyze the challenges caused by the creation of new countries
		Explore the impact that wars, disputed territories, and religion in politics have on global relationships
		Identify recent changes in political identities from unifications
	Modern Global Concerns	
		Analyze the reasons nuclear proliferation is a major global issue affecting relationships between countries
		Examine the impact of globalization on world economies and the rise of regional economic blocs
		Identify environmental challenges and possible solutions
Agriculture and Land Use		
	Early Agrarian Societies	
		Compare ancient river civilizations, including Mesopotamia, Egypt, and Sumer
		Explore reasons for moving from a nomadic lifestyle to an agrarian one
		Identify early farming practices of Neolithic humans
	Revolutions in Agriculture	
		Describe the impact of the Green Revolution
		Identify improvements in technology that changed agricultural practices
		Identify the importance of plant and animal domestication in developing a stationary settlement
	Land Use: Settlement Patterns	
		Differentiate among urban and rural environments and explore their connections
		Summarize the Von Thunen model of land use and its application today
	Agri-Zones: Regions of Production	
		Differentiate between subsistence and commercial farming
		Identify associations between crop growth and climate zones
		Identify ways in which farming has modified or changed the environment

Unit	Lesson	Lesson Objectives
	Agriculture: Products and Consumption	
		Examine the relationship between agriculture systems and climatic zones
		Identify links between production areas and consumption areas
	Economic Factors of Agricultural Production	
		Analyze how improvements in mechanization, transportation, refrigeration, and other technologies have affected agricultural production
		Sequence the development of modern commercial agriculture
	Modern Agriculture: Changing Landscapes	
		Examine ways that damming rivers, deforestation, and desertification for agriculture have affected the environment
	Changing Face of Farms	
		Analyze reasons for a decline in the number of small family farms in the United States
		Describe the purpose of agricultural subsidies in America
		Identify the effects of government subsidies on the farming economy as well as on the environment
	Changing Technology, Changing Agriculture	
		Explore the benefits and challenges of producing organic foods
		Explore the benefits and challenges of producing bioengineered foods
Industrialization and Economic Development		
	Economic and Social Development	
		Analyze the geography of economic development
		Compare theories and models of economic development
		Define "development" and understand its application in the global economy
		Explore methods of measuring development
	Global Economic Sectors and Systems	
		Compare the roles of formal and informal sectors in relation to a country's economy
		Examine the relationship between comparative advantage and specialization
		Identify the four main economic systems
		Investigate the five economic sectors
	Barriers to Economic Growth	
		Explore strategies implemented by governments and private corporations to overcome barriers to economic development
		Identify geographic, social, and political characteristics of less developed countries that inhibit economic growth
	Revolutions in Technology	
		Analyze the effects of inventions, innovations, and improved technology on industrialization
		Identify how energy is essential to industrialization
		Identify how technology is essential to industrialization

Unit	Lesson	Lesson Objectives
	Financial Resources and Global Lending	
		Describe the role of the International Monetary Fund as a global financial resource
		Describe the role of the World Bank as a global financial resource
		Examine the role of NGOs in financial lending
	Gender and Economic Development	
		Examine the role of women in the economies of developing nations
		Explore the relationship between women and economies in developed nations
		Identify challenges faced by women in the workforce
	Westernization and Commoditization	
		Analyze the westernization and commoditization of culture
		Examine the role of multinational corporations in the global economy
		Examine the role of the global economy in the commoditization of goods and services
		Identify ways in which Western nations have influenced the global economy, including the WTO
	Environmental Concerns of Industrialization	
		Explain the growth of the environmental movement in the United States
		Identify environmental concerns and problems caused by or resulting from industrialization
		Identify health concerns and problems caused by or resulting from industrialization
		Identify solutions to health and environmental problems caused by or resulting from industrialization
	Ethics of Industrialization	
		Analyze controversies surrounding the use of sweatshops
		Examine early labor laws and conditions
		Examine modern labor laws and conditions and make global comparisons
		Explain movements for change that grew out of the conditions of the Industrial Revolution
The Urban Environment		
	Urban Planning and Design	
		Analyze the relationship between the built environment and the natural environment
		Compare and contrast planned cities to those that developed organically
		Explore various theories of urban construction and development
	Transportation and Infrastructure in the Modern Space	
		Analyze how improvements in transportation technology changed the urban environment
		Compare and contrast the ways in which the east and west coasts of the US developed
		Identify developments in transportation infrastructure that made cities more accessible

Unit	Lesson	Lesson Objectives
	The Suburban Environment in the Modern Space	
		Analyze the future of sprawling environments
		Characterize the suburban environment
		Examine new urbanism and planning responses to suburban issues
		Explore the nature of urban sprawl and the development of edge cities
	Immigration and Urban Enclaves	
		Examine the development of enclaves within cities
		Identify ways immigration has influenced the urban environment
	Race and Class in the City	
		Analyze reasons for artificial and natural sorting by economic class, ethnicity, or race
		Examine the ghettoization of the urban environment
	Comparative Urban Environments	
		Compare and contrast influences on the development of diverse urban environments
		Compare levels of modern urban development
		Explore the development and growth of modern urban areas
	Global Cities	
		Analyze the future of rising and declining global cities
		Analyze the qualities of global cities and their effect on the world community
		Examine globalization and the creation of modern global cities
	Challenges Facing the Modern Urban Space	
		Analyze the effects of growing populations, increased poverty, and limited health care on the urban environment
		Examine environmental hazards facing cities today

Standard ID	Standard Text	Edgenuity Lesson Name
PA.5.U.	Civics and Government (US HISTORY 1850-PRESENT)	
5.1.U	Principles and Documents of Government	
5.1.U.A	Rule of Law	
5.1.U.A.1	Apply examples of the rule of law as related to individual rights and the common good.	
		Civil Rights and Voting Rights Johnson's Great Society Presidential and Radical Reconstruction Reforming Business and Government The Emancipation Proclamation The Warren Court Urban and Social Reforms Women's Rights and Suffrage
5.1.U.C	Principles and Ideals that Shape Government	
5.1.U.C.1	Analyze the principles and ideals that shape United States government.	
5.1.U.C.1.a	Liberty / Freedom	
		Civil Rights and Voting Rights Civil Rights at the Turn of the Century Dred Scott and the Slavery Debate Nonviolent Protest Organizing to Demand Rights Other Perspectives on Civil Rights The Civil Rights Movement Begins The Emancipation Proclamation Women's Rights and Suffrage Women's Rights Movement
5.1.U.C.1.b	Democracy	
		Civil Rights and Voting Rights Civil Rights at the Turn of the Century Nonviolent Protest Organizing to Demand Rights Other Perspectives on Civil Rights The Civil Rights Movement Begins Women's Rights and Suffrage Women's Rights Movement

Standard ID	Standard Text	Edgenuity Lesson Name
5.1.U.C.1.c	Justice	
		Civil Rights and Voting Rights Civil Rights at the Turn of the Century Dred Scott and the Slavery Debate Nonviolent Protest Organizing to Demand Rights Other Perspectives on Civil Rights The Civil Rights Movement Begins Women's Rights and Suffrage Women's Rights Movement
5.1.U.C.1.d	Equality	
		Civil Rights and Voting Rights Civil Rights at the Turn of the Century Nonviolent Protest Organizing to Demand Rights Other Perspectives on Civil Rights The Civil Rights Movement Begins Women's Rights and Suffrage Women's Rights Movement
5.1.U.D	Documents and Ideals that Shape Pennsylvania and US Government	
5.1.U.D.1	Compare and contrast the basic principles and ideals found in significant documents:	
5.1.U.D.1.a	Declaration of Independence	
		Women's Rights and Suffrage
5.1.U.D.1.b	United States Constitution	
		Dred Scott and the Slavery Debate End of the War in Vietnam Internment and the Constitution Presidential and Radical Reconstruction The Warren Court Watergate and the Ford Years Women's Rights Movement
5.1.U.D.1.c	Bill of Rights	
		America in the Great War The Warren Court
5.1.U.D.1.d	Pennsylvania Constitution	

Standard ID	Standard Text	Edgenuity Lesson Name
5.1.U.F	Symbols	
5.1.U.F.1	Analyze the role political symbols play in civil disobedience and patriotic activities.	
		Nonviolent Protest
		Organizing to Demand Rights
		Other Perspectives on Civil Rights
		The Counterculture
		The Warren Court
		Women's Rights Movement
5.2.U	Rights and Responsibilities of Citizenship	
5.2.U.A	Civics Rights and Responsibilities	
5.2.U.A.1	Contrast the rights and responsibilities of a citizen in a democracy with a citizen in an authoritarian system.	
		Fascism and Aggression
5.2.U.B	Conflict and Resolution	
5.2.U.B.1	Analyze strategies used to resolve conflicts in society and government.	
		America in the Great War
		America's Entry into the War
		Brinkmanship in the Cold War
		Carter and the Middle East
		Civil Rights and Voting Rights
		Civil Rights at the Turn of the Century
		End of the War in the Pacific
		End of the War in Vietnam
		Fascism and Aggression
		Internment and the Constitution
		Johnson's Great Society
		Kennedy and the Cold War
		Labor and Unrest
		McCarthyism
		Military Intervention in the Middle East
		Neutrality and the War in Europe
		Nonviolent Protest
		Organizing to Demand Rights
		Other Perspectives on Civil Rights
		Partisan Conflict in Government
		Presidential and Radical Reconstruction
		Reagan and the Evil Empire
		Reforming Business and Government
		Roosevelt's Hundred Days
		The Civil Rights Movement Begins
		The Civil War Begins

Standard ID	Standard Text	Edgenuity Lesson Name
5.2.U.B.1	Analyze strategies used to resolve conflicts in society and government. *(Cont'd.)*	The Cold War The Counterculture The Emancipation Proclamation The End of the Cold War The Korean War The Muckrakers The New Deal The Populist Party The Progressive Movement The Warren Court Urban and Social Reforms Wilson and the War Women's Rights and Suffrage Women's Rights Movement
5.2.U.C	Leadership and Public Service	
5.2.U.C.1	Examine political leadership and public service in a republican form of government.	America and the War at Home America in the Bush Years America's Entry into the War Brinkmanship in the Cold War Carter and the Middle East Civil Rights and Voting Rights End of the War in the Pacific Internment and the Constitution Johnson's Great Society Kennedy and the Cold War Lincoln McCarthyism Nixon's Presidency Nonviolent Protest Organizing to Demand Rights Other Perspectives on Civil Rights Partisan Conflict in Government Presidential and Radical Reconstruction Reagan and the 1980s Reagan and the Evil Empire Roaring Economy to Great Depression Roosevelt's Hundred Days September 11, 2007 The Bush Presidency

Standard ID	Standard Text	Edgenuity Lesson Name
5.2.U.C.1	Examine political leadership and public service in a republican form of government. *(Cont'd.)*	The Civil Rights Movement Begins The Clinton Administration The Emancipation Proclamation The New Deal The Obama Presidency Watergate and the Ford Years Wilson and the War Women's Rights Movement
5.2.U.D	Competent and Responsible Citizens	
5.2.U.D.1	Evaluate and demonstrate what makes competent and responsible citizens.	A Worker's Life The Immigrant Experience The Populist Party Urban and Social Reforms The Muckrakers Women's Rights and Suffrage Civil Rights at the Turn of the Century The Progressive Movement America in the Great War American Life in the Great Depression America and the War at Home McCarthyism The Counterculture The Civil Rights Movement Begins Organizing to Demand Rights Nonviolent Protest Other Perspectives on Civil Rights Women's Rights Movement
5.3.U	How Government Works	
5.3.U.D	Leadership and Political Elections	
5.3.U.D.1	Evaluate the roles of political parties, interest groups, and mass media in politics and public policy.	The Civil War Begins The Civil Rights Movement Begins Organizing to Demand Rights Nonviolent Protest Other Perspectives on Civil Rights Women's Rights Movement

Standard ID	Standard Text	Edgenuity Lesson Name
5.3.U.F	Conflict and the Court System	
5.3.U.F.1	Analyze landmark United States Supreme Court interpretations of the Constitution and its Amendments.	
		Dred Scott and the Slavery Debate
		Internment and the Constitution
		The Civil Rights Movement Begins
		The Warren Court
		Women's Rights Movement
5.4.U	How International Relationships Function	
5.4.U.A	Countries and Conflicts	
5.4.U.A.1	Explain how United States foreign policy is developed.	
		Expanding Borders
		The Spanish-American War
		America in the Great War
		Wilson and the War
		America's Entry into the War
		The Cold War
		The Korean War
		Brinkmanship in the Cold War
		Kennedy and the Cold War
		The Vietnam War
		End of the War in Vietnam
		Carter and the Middle East
		Reagan and the Evil Empire
		The End of the Cold War
		The Bush Presidency
		The Clinton Administration
		Military Intervention in the Middle East
		The Obama Presidency
5.4.U.A.1	Explain how United States foreign policy is developed.	
		America in the Great War
		America's Entry into the War
		Brinkmanship in the Cold War
		Carter and the Middle East
		End of the War in Vietnam
		Expanding Borders
		Kennedy and the Cold War
		Military Intervention in the Middle East
		Reagan and the Evil Empire
		The Bush Presidency
		The Clinton Administration

Standard ID	Standard Text	Edgenuity Lesson Name
5.4.U.A.1	Explain how United States foreign policy is developed. *(Cont'd.)*	The Cold War The End of the Cold War The Korean War The Obama Presidency The Spanish-American War The Vietnam War Wilson and the War
PA.6.U.	Economics (US HISTORY 1850-PRESENT)	
6.1.U	Scarcity and Choice	
6.1.U.A	Scarcity and Choice	
6.1.U.A.1	Analyze how choices are made because of scarcity.	The Civil War at Home American Life in the Great Depression Roosevelt's Hundred Days The New Deal
6.1.U.B	Limited Resources	
6.1.U.B.1	Analyze how conflict and cooperation among groups and organizations have impacted the control of limited resources in the United States.	The Civil War at Home Roosevelt's Hundred Days The New Deal
6.1.U.C	Opportunity Costs	
6.1.U.C.1	Analyze the opportunity cost of decisions made by individuals, businesses, communities, and nations.	Failures of Reconstruction Reforming Business and Government Roaring Economy to Great Depression The New Deal
6.2.U	Markets and Economic Systems	
6.2.U.A	Goods and Services	
6.2.U.A.1	Analyze the flow of goods and services in the national economy.	A New Revolution Homesteaders and the Transcontinental Railroad New American Industries Technology and Society in the Industrial Age Trusts and Big Business

Standard ID	Standard Text	Edgenuity Lesson Name
6.2.U.C	Advertising and Media	
6.2.U.C.1	Evaluate the impact of advertising and media on individual and group behavior throughout United States history.	America and the War at Home The Baby Boom The Muckrakers The Spanish-American War
6.2.U.D	Price Determination	
6.2.U.D.1	Explain how the laws of supply and demand impacted individuals and groups behavior over time.	America and the Global Economy American Life in the Great Depression Reforming Business and Government Roaring Economy to Great Depression The Baby Boom
6.2.U.E	Economic Health	
6.2.U.E.1	Analyze the impact of the business cycle on individual and group behavior over time.	Reforming Business and Government
6.2.U.E.2	Analyze the characteristics of economic expansion, recession, and depression.	A New Revolution America in the Bush Years American Life in the Great Depression Reagan and the 1980s Roaring Economy to Great Depression The Baby Boom The Economy in the 1970s The Obama Presidency
6.2.U.F	Private Economic Institutions	
6.2.U.F.1	Analyze the impact of private economic institutions on individuals and groups over time.	Reforming Business and Government
6.2.U.G	Economic Systems	
6.2.U.G.1	Compare and contrast various economic systems.	America and the Global Economy

Standard ID	Standard Text	Edgenuity Lesson Name
6.3.U	Functions of Government	
6.3.U.B	Government Involvement in the Economy	
6.3.U.B.1	Analyze how conflict and cooperation among groups and organizations have impacted the growth and development of the U.S.	
6.3.U.B.1.a	Ethnicity and Race	American Indians on a Closing Frontier Dred Scott and the Slavery Debate Failures of Reconstruction Impact of Reconstruction New Immigration Society in the 1920s The Civil War at Home The Emancipation Proclamation The Great Migration The Immigrant Experience
6.3.U.B.1.b	Working conditions	A Worker's Life Failures of Reconstruction Labor and Unrest Reforming Business and Government
6.3.U.B.1.c	Immigration	Immigration and Demographic Change New Immigration The Immigrant Experience
6.3.U.B.1.d	Military conflict	America and the War at Home End of the War The Civil War at Home Turning Points
6.3.U.B.1.e	Economic Stability	America in the Bush Years Roosevelt's Hundred Days The New Deal The Obama Presidency
6.3.U.C	Taxation	
6.3.U.C.1	Compare and contrast the taxation policies of the local, state, and national governments.	

Standard ID	Standard Text	Edgenuity Lesson Name
6.3.U.D	Government's Role in International Trade	
6.3.U.D.1	Analyze how conflict and cooperation among groups and organizations have impacted the growth and development of the US.	
6.3.U.D.1.a	Ethnicity and Race	Immigration and Demographic Change
6.3.U.D.1.b	Working conditions	America and the Global Economy
6.3.U.D.1.c	Immigration	A New Revolution Immigration and Demographic Change
6.3.U.D.1.d	Military conflict	September 11, 2002 The Bush Presidency
6.3.U.D.1.e	Economic Stability	America and the Global Economy The Economy in the 1970s
6.4.U	Economic Interdependence	
6.4.U.A	Specialization	
6.4.U.A.1	Explain how specialization contributes to economic interdependence on a national and international level.	America and the Global Economy Technology and its Effects on Modern America
6.4.U.C	Multinational and Non-Governmental Organizations	
6.4.U.C.1	Compare the role groups and individuals played in the social, political, cultural, and economic development of the U.S.	The Clinton Administration The Cold War The Economy in the 1970s
6.4.U.D	Economic Interdependence	
6.4.U.D.1	Explain how the level of development of transportation, communication networks, and technology affect economic interdependence.	A New Revolution America and the Global Economy Homesteaders and the Transcontinental Railroad New American Industries Technology and its Effects on Modern America

Appendix 600

Standard ID	Standard Text	Edgenuity Lesson Name
6.5.U	Income, Profit, and Wealth	
6.5.U.B	Labor Productivity	
6.5.U.B.1	Compare the role groups and individuals played in the social, political, cultural, and economic development of the U.S.	
		A Worker's Life Labor and Unrest Reforming Business and Government
6.5.U.E	Distribution of Wealth	
6.5.U.E.1	Define wealth and describe its distribution within and among the political divisions of the United States.	
		A Worker's Life Trusts and Big Business
6.5.U.F	Entrepreneurship	
6.5.U.F.1	Examine leading entrepreneurs in the United States in terms of the risks they took and the rewards they received.	
		New American Industries Technology and Society in the Industrial Age Trusts and Big Business
PA.7.U.	Geography (US HISTORY 1850-PRESENT)	
7.1.U	Basic Geographic Literacy	
7.1.U.A	Geographic Tools	
7.1.U.A.1	Use geographic tools to analyze information about the interaction between people, places, and the environment.	
		Immigration and Demographic Change New Immigration
7.2.U	Physical Characteristics of Places and Regions	
7.2.U.A	Physical Characteristics	
7.2.U.A.1	Analyze the physical characteristics of places and regions, including the interrelationships among the components of Earth's physical systems.	
		A New Revolution American Indians on a Closing Frontier Homesteaders and the Transcontinental Railroad New American Industries
7.2.U.B	Physical Processes	
7.2.U.B.1	Analyze the significance of physical processes in shaping the character of places and regions.	
		A New Revolution American Indians on a Closing Frontier Homesteaders and the Transcontinental Railroad New American Industries

Standard ID	Standard Text	Edgenuity Lesson Name
7.3.U	Human Characteristics of Places and Regions	
7.3.U.A	Human Characteristics	
7.3.U.A.1	Analyze the human characteristics of places and regions using the following criteria:	
7.3.U.A.1.a	Population	American Indians on a Closing Frontier Homesteaders and the Transcontinental Railroad Immigration and Demographic Change Johnson's Great Society The Baby Boom The Great Migration The Populist Party Urbanization in America
7.3.U.A.1.b	Culture	American Indians on a Closing Frontier Homesteaders and the Transcontinental Railroad Immigration and Demographic Change The Baby Boom The Great Migration Urbanization in America
7.3.U.A.1.c	Settlement	American Indians on a Closing Frontier Homesteaders and the Transcontinental Railroad Immigration and Demographic Change The Baby Boom The Great Migration Urbanization in America
7.3.U.A.1.d	Economic activities	American Indians on a Closing Frontier Homesteaders and the Transcontinental Railroad Immigration and Demographic Change The Baby Boom The Great Migration The Populist Party Urbanization in America
7.3.U.A.1.e	Political activities	American Indians on a Closing Frontier Homesteaders and the Transcontinental Railroad Immigration and Demographic Change The Baby Boom The Great Migration The Populist Party

Standard ID	Standard Text	Edgenuity Lesson Name
7.3.U.A.1.e	Political activities *(Cont'd.)*	Urban and Social Reforms
7.4.U	Interactions Between People and the Environment	
7.4.U.A	Impact of Physical Systems on People	
7.4.U.A.1	Analyze the effects of changes in the physical systems.	Homesteaders and the Transcontinental Railroad Nixon's Presidency The Bush Presidency
7.4.U.B	Impact of People on Physical Systems	
7.4.U.B.1	Analyze the effects of human activity on the physical systems.	Homesteaders and the Transcontinental Railroad Nixon's Presidency The Bush Presidency
PA.8.U.	History (US HISTORY 1850-PRESENT)	
8.1.U	Historical Analysis and Skills Development	
8.1.U.A	Continuity and Change over Time	
8.1.U.A.1	Evaluate patterns of continuity and change over time, applying context of events.	Civil Rights and Voting Rights Civil Rights at the Turn of the Century Dred Scott and the Slavery Debate Failures of Reconstruction Immigration and Demographic Change Impact of Reconstruction Johnson's Great Society New Immigration Nonviolent Protest Organizing to Demand Rights Other Perspectives on Civil Rights Presidential and Radical Reconstruction Society in the 1920s The Civil Rights Movement Begins The Emancipation Proclamation The Great Migration The Immigrant Experience The Warren Court Women's Rights and Suffrage Women's Rights Movement

Standard ID	Standard Text	Edgenuity Lesson Name
8.1.U.B	Fact/Opinion and Points of View	
8.1.U.B.1	Evaluate the interpretation of historical events and sources, considering the use of fact versus opinion, multiple perspectives, and cause and effect relationships.	
		A Worker's Life
		America and the Global Economy
		America and the War at Home
		America in the Bush Years
		America in the Great War
		America's Entry into the War
		American Indians on a Closing Frontier
		American Life in the Great Depression
		Brinkmanship in the Cold War
		Carter and the Middle East
		Civil Rights and Voting Rights
		Civil Rights at the Turn of the Century
		Dred Scott and the Slavery Debate
		End of the War
		End of the War in the Pacific
		End of the War in Vietnam
		Expanding Borders
		Failures of Reconstruction
		Fascism and Aggression
		Homesteaders and the Transcontinental Railroad
		Immigration and Demographic Change
		Impact of Reconstruction
		Internment and the Constitution
		Johnson's Great Society
		Kennedy and the Cold War
		Labor and Unrest
		Lincoln
		McCarthyism
		Military Intervention in the Middle East
		Neutrality and the War in Europe
		New Immigration
		Nixon's Presidency
		Nonviolent Protest
		Organizing to Demand Rights
		Other Perspectives on Civil Rights
		Partisan Conflict in Government
		Presidential and Radical Reconstruction
		Prohibition

Standard ID	Standard Text	Edgenuity Lesson Name
8.1.U.B.1	Evaluate the interpretation of historical events and sources, considering the use of fact versus opinion, multiple perspectives, and cause and effect relationships. *(Cont'd.)*	Reagan and the 1980s Reagan and the Evil Empire Reforming Business and Government Roaring Economy to Great Depression Roosevelt's Hundred Days September 11, 2006 Society in the 1920s Technology and its Effects on Modern America The Baby Boom The Bush Presidency The Civil Rights Movement Begins The Civil War at Home The Civil War Begins The Clinton Administration The Cold War The Counterculture The Economy in the 1970s The Emancipation Proclamation The End of the Cold War The Great Migration The Immigrant Experience The Korean War The Muckrakers The New Deal The Obama Presidency The Populist Party The Progressive Movement The Spanish-American War The Vietnam War The War in Europe The Warren Court Turning Points Turning Points in the Pacific Urban and Social Reforms War Crimes and the Holocaust Watergate and the Ford Years Wilson and the War Women's Rights and Suffrage Women's Rights Movement

Standard ID	Standard Text	Edgenuity Lesson Name
8.1.U.C	Research	
8.1.U.C.1	Analyze, synthesize and integrate historical data, creating a product that supports and appropriately illustrates inferences and conclusions drawn from research.	
		Civil Rights at the Turn of the Century End of the War in the Pacific Fascism and Aggression Homesteaders and the Transcontinental Railroad Internment and the Constitution Labor and Unrest Lincoln Presidential and Radical Reconstruction The Cold War The Great Migration The Immigrant Experience The War in Europe Wilson and the War
8.2.U	Pennsylvania History	
8.2.U.A	Contributions of Individuals and Groups (PA)	
8.2.U.A.1	Evaluate the role groups and individuals from Pennsylvania played in the social, political, cultural, and economic development of the U.S.	
		The Muckrakers Turning Points
8.2.U.B	Historical Documents, Artifacts, and Places (PA)	
8.2.U.B.1	Evaluate the importance of various historical documents, artifacts, and places in Pennsylvania which are critical to U.S.	
		September 11, 2008 Turning Points
8.2.U.C	Impact of Continuity and Change on PA History	
8.2.U.C.1	Evaluate continuity and change in Pennsylvania are interrelated to the U.S.	
8.2.U.C.1.a	Belief systems and religions	
8.2.U.C.1.b	Commerce and industry	
		The Muckrakers
8.2.U.C.1.c	Technology	
		Trusts and Big Business
8.2.U.C.1.d	Politics and government	
		Turning Points
8.2.U.C.1.e	Physical and human geography	
8.2.U.C.1.f	Social organizations	

Standard ID	Standard Text	Edgenuity Lesson Name
8.2.U.D	Conflict and Cooperation (PA)	
8.2.U.D.1	Evaluate how conflict and cooperation among groups and organizations in Pennsylvania have influenced the growth and development of the U.S.	
8.2.U.D.1.a	Ethnicity and race	
8.2.U.D.1.b	Working conditions	
		A Worker's Life
		The Muckrakers
8.2.U.D.1.c	Immigration	
8.2.U.D.1.d	Military conflict	
		Turning Points
8.2.U.D.1.e	Economic stability	
		Trusts and Big Business
8.3.U	United States History	
8.3.U.A	Contributions of Individuals and Groups (US History)	
8.3.U.A.1	Compare the role groups and individuals played in the social, political, cultural, and economic development of the U.S.	
		A Worker's Life
		America and the Global Economy
		America and the War at Home
		America in the Bush Years
		America in the Great War
		America's Entry into the War
		American Indians on a Closing Frontier
		American Life in the Great Depression
		Brinkmanship in the Cold War
		Carter and the Middle East
		Civil Rights and Voting Rights
		Civil Rights at the Turn of the Century
		Dred Scott and the Slavery Debate
		End of the War
		End of the War in the Pacific
		End of the War in Vietnam
		Expanding Borders
		Failures of Reconstruction
		Fascism and Aggression
		Homesteaders and the Transcontinental Railroad
		Immigration and Demographic Change
		Impact of Reconstruction
		Internment and the Constitution
		Johnson's Great Society
		Kennedy and the Cold War

Standard ID	Standard Text	Edgenuity Lesson Name
8.3.U.A.1	Compare the role groups and individuals played in the social, political, cultural, and economic development of the U.S. *(Cont'd.)*	Labor and Unrest Lincoln McCarthyism Military Intervention in the Middle East Neutrality and the War in Europe New American Industries New Immigration Nixon's Presidency Nonviolent Protest Organizing to Demand Rights Other Perspectives on Civil Rights Partisan Conflict in Government Presidential and Radical Reconstruction Prohibition Reagan and the 1980s Reagan and the Evil Empire Reforming Business and Government Roaring Economy to Great Depression Roosevelt's Hundred Days September 11, 2004 Society in the 1920s Technology and its Effects on Modern America Technology and Society in the Industrial Age The Baby Boom The Bush Presidency The Civil Rights Movement Begins The Civil War at Home The Civil War Begins The Clinton Administration The Cold War The Counterculture The Economy in the 1970s The Emancipation Proclamation The End of the Cold War The Great Migration The Immigrant Experience The Korean War The Muckrakers The New Deal

Standard ID	Standard Text	Edgenuity Lesson Name
8.3.U.A.1	Compare the role groups and individuals played in the social, political, cultural, and economic development of the U.S. *(Cont'd.)*	The Obama Presidency The Populist Party The Progressive Movement The Spanish-American War The Vietnam War The War in Europe The Warren Court Trusts and Big Business Turning Points Turning Points in the Pacific Urban and Social Reforms Urbanization in America War Crimes and the Holocaust Watergate and the Ford Years Wilson and the War Women's Rights and Suffrage Women's Rights Movement
8.3.U.B.1	Compare the impact of historical documents, artifacts, and places which are critical to the U.S.	A Worker's Life America and the Global Economy America and the War at Home America in the Bush Years America in the Great War America's Entry into the War American Indians on a Closing Frontier American Life in the Great Depression Brinkmanship in the Cold War Carter and the Middle East Civil Rights and Voting Rights Civil Rights at the Turn of the Century Dred Scott and the Slavery Debate End of the War End of the War in the Pacific End of the War in Vietnam Expanding Borders Failures of Reconstruction Fascism and Aggression Homesteaders and the Transcontinental Railroad

Standard ID	Standard Text	Edgenuity Lesson Name
8.3.U.B.1	Compare the impact of historical documents, artifacts, and places which are critical to the U.S. *(Cont'd.)*	Immigration and Demographic Change Impact of Reconstruction Internment and the Constitution Johnson's Great Society Kennedy and the Cold War Labor and Unrest Lincoln McCarthyism Military Intervention in the Middle East Neutrality and the War in Europe New Immigration Nixon's Presidency Nonviolent Protest Organizing to Demand Rights Other Perspectives on Civil Rights Partisan Conflict in Government Presidential and Radical Reconstruction Prohibition Reagan and the 1980s Reagan and the Evil Empire Reforming Business and Government Roaring Economy to Great Depression Roosevelt's Hundred Days September 11, 2005 Society in the 1920s Technology and its Effects on Modern America The Baby Boom The Bush Presidency The Civil Rights Movement Begins The Civil War at Home The Civil War Begins The Clinton Administration The Cold War The Counterculture The Economy in the 1970s The Emancipation Proclamation The End of the Cold War The Great Migration The Immigrant Experience

Standard ID	Standard Text	Edgenuity Lesson Name
8.3.U.B.1	Compare the impact of historical documents, artifacts, and places which are critical to the U.S.	
	(Cont'd.)	The Korean War
		The Muckrakers
		The New Deal
		The Obama Presidency
		The Populist Party
		The Progressive Movement
		The Spanish-American War
		The Vietnam War
		The War in Europe
		The Warren Court
		Turning Points
		Turning Points in the Pacific
		Urban and Social Reforms
		War Crimes and the Holocaust
		Watergate and the Ford Years
		Wilson and the War
		Women's Rights and Suffrage
		Women's Rights Movement
8.3.U.C	Impact of Continuity and Change on US History	
8.3.U.C.1	Evaluate how continuity and change have impacted the United States.	
8.3.U.C.1.a	Belief systems and religions	
		McCarthyism
		Prohibition
		September 11, 2001
		The Progressive Movement
		Urban and Social Reforms
8.3.U.C.1.b	Commerce and industry	
		A New Revolution
		America and the Global Economy
		America and the War at Home
		Homesteaders and the Transcontinental Railroad
		New American Industries
		Reforming Business and Government
		Roaring Economy to Great Depression
		Technology and Society in the Industrial Age
		The Baby Boom
		The Clinton Administration
		The Economy in the 1970s
		Trusts and Big Business

Standard ID	Standard Text	Edgenuity Lesson Name
8.3.U.C.1.c	Technology	
		A New Revolution
		America and the Global Economy
		America in the Great War
		Homesteaders and the Transcontinental Railroad
		New American Industries
		Technology and its Effects on Modern America
		Technology and Society in the Industrial Age
		The Baby Boom
		Urbanization in America
8.3.U.C.1.d	Politics and government	
		Johnson's Great Society
		McCarthyism
		Partisan Conflict in Government
		Watergate and the Ford Years
8.3.U.C.1.e	Physical and human geography	
		America and the Global Economy
		Carter and the Middle East
		Expanding Borders
		Immigration and Demographic Change
		New Immigration
		Nixon's Presidency
		The Great Migration
		Urbanization in America
8.3.U.C.1.f	Social organizations	
		Other Perspectives on Civil Rights
		The Populist Party
8.3.U.D	Conflict and Cooperation (US)	
8.3.U.D.1	Evaluate how conflict and cooperation among groups and organizations have influenced the growth and development of the U.S.	
8.3.U.D.1.a	Ethnicity and Race	
		Civil Rights at the Turn of the Century
		End of the War
		Failures of Reconstruction
		Immigration and Demographic Change
		Impact of Reconstruction
		Internment and the Constitution
		New Immigration
		Presidential and Radical Reconstruction
		The Civil War at Home
		The Immigrant Experience

Standard ID	Standard Text	Edgenuity Lesson Name
8.3.U.D.1.a	Ethnicity and Race *(Cont'd.)*	Turning Points
8.3.U.D.1.b	Working conditions	A Worker's Life Failures of Reconstruction Labor and Unrest Reforming Business and Government The Muckrakers The Progressive Movement
8.3.U.D.1.c	Immigration	Immigration and Demographic Change New Immigration The Immigrant Experience
8.3.U.D.1.d	Military conflict	America in the Great War America's Entry into the War End of the War End of the War in the Pacific End of the War in Vietnam Internment and the Constitution Military Intervention in the Middle East Neutrality and the War in Europe September 11, 2003 The Civil War at Home The Civil War Begins The Spanish-American War The Vietnam War The War in Europe Turning Points Turning Points in the Pacific War Crimes and the Holocaust Wilson and the War
8.3.U.D.1.e	Economic Stability	America in the Bush Years Roosevelt's Hundred Days The New Deal The Obama Presidency

Standard ID	Standard Text	Edgenuity Lesson Name
PA.CC.8.5.9-10.	Reading Informational Text: Students read, understand, and respond to informational text - with emphasis on comprehension, making connections among ideas and between texts with focus on textual evidence. Key Ideas and Details	
CC.8.5.9-10.A.	Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.	
		America in the Great War American Indians on a Closing Frontier Civil Rights at the Turn of the Century Expanding Borders Prohibition The End of the Cold War Trusts and Big Business Wilson and the War
CC.8.5.9-10.B.	Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.	
		America in the Great War Carter and the Middle East Johnson's Great Society Nixon's Presidency Nonviolent Protest The Cold War The Warren Court Watergate and the Ford Years
CC.8.5.9-10.C.	Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.	
		America's Entry into the War Fascism and Aggression Internment and the Constitution Kennedy and the Cold War McCarthyism Reagan and the Evil Empire Roaring Economy to Great Depression The Baby Boom The Bush Presidency The Emancipation Proclamation The End of the Cold War The Great Migration The Korean War Turning Points in the Pacific

Standard ID	Standard Text	Edgenuity Lesson Name
	Craft and Structure	
CC.8.5.9-10.D.	Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.	
		A New Revolution
		A Worker's Life
		America and the Global Economy
		America and the War at Home
		America in the Bush Years
		America in the Great War
		America's Entry into the War
		American Indians on a Closing Frontier
		American Life in the Great Depression
		Brinkmanship in the Cold War
		Carter and the Middle East
		Civil Rights and Voting Rights
		Civil Rights at the Turn of the Century
		Dred Scott and the Slavery Debate
		End of the War
		End of the War in the Pacific
		End of the War in Vietnam
		Expanding Borders
		Failures of Reconstruction
		Fascism and Aggression
		Homesteaders and the Transcontinental Railroad
		Immigration and Demographic Change
		Impact of Reconstruction
		Internment and the Constitution
		Johnson's Great Society
		Kennedy and the Cold War
		Labor and Unrest
		Lincoln
		McCarthyism
		Military Intervention in the Middle East
		Neutrality and the War in Europe
		New American Industries
		New Immigration
		Nixon's Presidency
		Nonviolent Protest
		Organizing to Demand Rights
		Other Perspectives on Civil Rights
		Partisan Conflict in Government

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.5.9-10.D.	Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science. *(Cont'd.)*	Presidential and Radical Reconstruction Prohibition Reagan and the 1980s Reagan and the Evil Empire Reforming Business and Government Roaring Economy to Great Depression Roosevelt's Hundred Days September 11, 2010 Society in the 1920s Technology and its Effects on Modern America Technology and Society in the Industrial Age The Baby Boom The Bush Presidency The Civil Rights Movement Begins The Civil War at Home The Civil War Begins The Clinton Administration The Cold War The Counterculture The Economy in the 1970s The Emancipation Proclamation The End of the Cold War The Great Migration The Immigrant Experience The Korean War The Muckrakers The New Deal The Obama Presidency The Populist Party The Progressive Movement The Spanish-American War The Vietnam War The War in Europe The Warren Court Trusts and Big Business Turning Points Turning Points in the Pacific Urban and Social Reforms Urbanization in America

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.5.9-10.D.	Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science. *(Cont'd.)*	War Crimes and the Holocaust Watergate and the Ford Years Wilson and the War Women's Rights and Suffrage Women's Rights Movement
CC.8.5.9-10.E.	Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.	America in the Great War
CC.8.5.9-10.F.	Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.	Civil Rights at the Turn of the Century Society in the 1920s
	Integration of Knowledge and Ideas	
CC.8.5.9-10.G.	Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.	American Life in the Great Depression New American Industries Organizing to Demand Rights The Baby Boom
CC.8.5.9-10.H.	Assess the extent to which the reasoning and evidence in a text support the author's claims.	Fascism and Aggression Kennedy and the Cold War Labor and Unrest McCarthyism Other Perspectives on Civil Rights The Populist Party
CC.8.5.9-10.I.	Compare and contrast treatments of the same topic in several primary and secondary sources.	Fascism and Aggression Society in the 1920s

Standard ID	Standard Text	Edgenuity Lesson Name
	Range and Level of Complex Texts	
CC.8.5.9-10.J.	By the end of grade 10, read and comprehend history/social studies texts in the grades 9-10 text complexity band independently and proficiently.	
		A New Revolution
		A Worker's Life
		America and the Global Economy
		America and the War at Home
		America in the Bush Years
		America in the Great War
		America's Entry into the War
		American Life in the Great Depression
		Brinkmanship in the Cold War
		Carter and the Middle East
		Civil Rights and Voting Rights
		Civil Rights at the Turn of the Century
		Dred Scott and the Slavery Debate
		End of the War
		End of the War in the Pacific
		End of the War in Vietnam
		Expanding Borders
		Failures of Reconstruction
		Fascism and Aggression
		Homesteaders and the Transcontinental Railroad
		Immigration and Demographic Change
		Impact of Reconstruction
		Internment and the Constitution
		Johnson's Great Society
		Kennedy and the Cold War
		Labor and Unrest
		Lincoln
		McCarthyism
		Military Intervention in the Middle East
		Neutrality and the War in Europe
		New American Industries
		New Immigration
		Nixon's Presidency
		Nonviolent Protest
		Organizing to Demand Rights
		Other Perspectives on Civil Rights
		Partisan Conflict in Government
		Presidential and Radical Reconstruction

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.5.9-10.J.	By the end of grade 10, read and comprehend history/social studies texts in the grades 9-10 text complexity band independently and proficiently. *(Cont'd.)*	Prohibition Reagan and the 1980s Reagan and the Evil Empire Reforming Business and Government Roaring Economy to Great Depression Roosevelt's Hundred Days September 11, 2009 Society in the 1920s Technology and its Effects on Modern America Technology and Society in the Industrial Age The Baby Boom The Bush Presidency The Civil Rights Movement Begins The Civil War at Home The Civil War Begins The Clinton Administration The Cold War The Counterculture The Economy in the 1970s The Emancipation Proclamation The End of the Cold War The Great Migration The Immigrant Experience The Korean War The Muckrakers The New Deal The Obama Presidency The Populist Party The Progressive Movement The Spanish-American War The Vietnam War The War in Europe The Warren Court Trusts and Big Business Turning Points Turning Points in the Pacific Urban and Social Reforms Urbanization in America War Crimes and the Holocaust

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.5.9-10.J.	By the end of grade 10, read and comprehend history/social studies texts in the grades 9-10 text complexity band independently and proficiently. *(Cont'd.)*	Watergate and the Ford Years Wilson and the War Women's Rights and Suffrage Women's Rights Movement
PA.CC.8.6.9-10.	Writing: Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.	
	Text Types and Purposes	
CC.8.6.9-10.A.	Write arguments focused on discipline-specific content.	
CC.8.6.9-10.A.1.	Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.	Writing Workshop: Structuring a Position Paper
CC.8.6.9-10.A.2.	ly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.	Writing Workshop: Structuring a Position Paper
CC.8.6.9-10.A.3.	Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.	Writing Workshop: Structuring a Position Paper
CC.8.6.9-10.A.4.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	Writing Workshop: Structuring a Position Paper
CC.8.6.9-10.A.5.	Provide a concluding statement or section that follows from or supports the argument presented.	Writing Workshop: Structuring a Position Paper
CC.8.6.9-10.B.	Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.	
CC.8.6.9-10.B.1.	Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	Writing Workshop
CC.8.6.9-10.B.2.	Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.	Writing Workshop
CC.8.6.9-10.B.3.	Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.	Writing Workshop

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.6.9-10.B.4.	Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.	Writing Workshop
CC.8.6.9-10.B.5.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	Writing Workshop
CC.8.6.9-10.B.6.	Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	Writing Workshop
	Production and Distribution of Writing	
CC.8.6.9-10.C.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Writing Workshop Writing Workshop: Structuring a Position Paper
CC.8.6.9-10.D.	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	Writing Workshop Writing Workshop: Structuring a Position Paper
CC.8.6.9-10.E.	Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and	Writing Workshop Writing Workshop: Structuring a Position Paper
	Research to Build and Present Knowledge	
CC.8.6.9-10.F.	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	Writing Workshop Writing Workshop: Structuring a Position Paper
CC.8.6.9-10.G.	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	Writing Workshop Writing Workshop: Structuring a Position Paper
CC.8.6.9-10.H.	Draw evidence from informational texts to support analysis, reflection, and research.	Writing Workshop Writing Workshop: Structuring a Position Paper

Standard ID	Standard Text	Edgenuity Lesson Name
	Range of Writing	
CC.8.6.9-10.I.	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	Reforming Business and Government Writing Workshop Writing Workshop: Structuring a Position Paper

Unit	Lesson	Lesson Objectives
The Civil War and Reconstruction		
	Dred Scott and the Slavery Debate	
		Analyze the impact of the case on the Missouri Compromise and the future of slavery in the US.
		Describe events and details surrounding the Dred Scott case.
		Explain the reasons for the Supreme Court's ruling in the case.
	Lincoln	
		Compare and contrast the viewpoints held by Lincoln and Douglas with regard to slavery and its expansion in the territories.
		Describe the emergence of Abraham Lincoln as a leader of the Republican Party.
		Examine the establishment of the Republican Party and outline its political views.
	The Civil War Begins	
		Analyze the significance of the Battle of Fort Sumter.
		Contrast the ideas presented in the inaugural addresses of Abraham Lincoln and Jefferson Davis.
		Describe the political climate surrounding the election of 1860 and the South's reaction to its outcome.
		Explain the reasons for the creation of the Confederate States of America.
	The Emancipation Proclamation	
		Analyze the reasons for and effects of the Emancipation Proclamation
		Describe the battles that resulted in early success for the South.
		Describe the contributions of African Americans during the Civil War.
	The Civil War at Home	
		Compare the challenges facing both sides on the home front as the war went on.
		Compare the strengths and weaknesses of the Union and the Confederacy as both sides mobilized for war.
		Identify the role of women on the front lines and on the home front.
	Turning Points	
		Examine why the Union victory at Gettysburg was a turning point in the war.
		Explain the significance of the capture of Vicksburg and New Orleans.
		Identify the reasons for the Union"s success in the West.
	End of the War	
		Analyze the impact of Grant's strategy of total war on the Confederacy's resources.
		Describe the overall impact of the war on the United States.
		Describe the reasons for Lee's surrender at Appomattox.
		Explain the postwar problems facing the North and the South.

Unit	Lesson	Lesson Objectives
	Presidential and Radical Reconstruction	
		Compare and contrast the presidential and congressional plans for Reconstruction, and analyze their effects.
		Describe the presidential plans for Reconstruction
		Examine the response by Congress to presidential plans for Reconstruction.
	Impact of Reconstruction	
		Analyze the reasons for the resurgence of Democratic Party leadership in the South.
		Describe the disputed presidential election of 1876 and its effect on the end of Reconstruction.
		Describe the progress made by African Americans during Reconstruction.
	Failures of Reconstruction	
		Describe the growing violence against African Americans as a result of Reconstruction.
		Examine the reasons for the development of sharecropping and tenant farming in the South during Reconstruction.
		Investigate the origins of legal segregation, including the passage of Jim Crow laws.
		Summarize the failures of Reconstruction.
Industrialization and the Gilded Age		
	A New Revolution	
		Describe the reasons the US became more industrialized after the Civil War.
		Explain the demographic changes that resulted from industrialization.
		Identify the effects of the growth of America's railroads on business and settlement.
	New American Industries	
		Explain how the expansion of rail networks led to the growth of other industries, such as steel, coal, and meatpacking.
		Identify examples of advancements and inventions that increased the safety, reliability, and effectiveness of railroads.
	Trusts and Big Business	
		Describe Rockefeller's horizontal integration practices.
		Explain Carnegie's vertical integration practices.
		Explain how monopolies and trusts reduced competition in the Gilded Age.
	Technology and Society in the Industrial Age	
		Analyze how new inventions changed life during the Industrial Age.
		Describe the advancements made in communications and transportation during the Industrial Age.
		Describe the influence of Thomas Edison's inventions on culture and society.
	A Worker's Life	
		Describe the excesses of the Gilded Age and the growing economic divide between the wealthy industrialists and the average American worker.
		Explain the effect of industrialization with respect to women, children, and families.
		Explain the principles of mass production.
		Generalize the working conditions typically found in American factories during the Industrial Era.

Unit	Lesson	Lesson Objectives
	Labor and Unrest	
		Describe the events of the 1894 Pullman Strike, and explain its effects on the labor movement.
		Identify examples of company and government tactics that slowed unions' growth and stopped unions' effectiveness.
		Identify goals of labor unions during the 1800s.
	New Immigration	
		Compare and contrast the "new" immigrants of the 1880s with the "old" immigrants who had dominated migration prior to that time.
		Describe the immigration experience, including the challenges immigrants faced after arrival.
		Explain what push and pull factors are and how they affect migration.
	The Immigrant Experience	
		Analyze the reasons for the rise of nativism in response to immigration.
		Describe the cultural and economic challenges facing new immigrants.
		Explain the relationship between immigrants and the cities in which they settled.
		Identify the provisions of the Chinese Exclusion Act and the reasons for wide-spread resistance to Chinese immigration.
	Urbanization in America	
		Describe the problems of poverty and overcrowding that were faced by cities in the industrial era.
		Explain the differences in the standard of living between classes in urban societies, and the problems created by these differences.
		Explain why urbanization occurred in the US during the industrial era.
	Writing Workshop	
		Create a well-developed, organized plan for the essay.
		Support your discussion with facts, details, and examples.
		Write an informative essay that summarizes the effects of the Industrial Revolution.
Progressivism and Reform		
	Homesteaders and the Transcontinental Railroad	
		Describe the challenges faced during construction of the transcontinental railroad.
		Describe the passage of the Homestead Act and analyze its effects on the settlement of the west.
		Explain at least three effects of railroad construction on the western United States.
	American Indians on a Closing Frontier	
		Describe at least two changes to federal American Indian policies that occurred as a result of increased western settlement.
		Explain how the expansion in the West and the construction of the railroad affected American Indian populations in the region.
		Identify two battles fought between American Indians and the US Army and explain the results of those conflicts.
	The Populist Party	
		Describe reforms or changes desired by members of the Populist Party.
		Describe the factors leading to the rise of Populism in the West, and explain the effects of the movement in America.
		Identify William Jennings Bryan, and explain his impact on American politics.

Unit	Lesson	Lesson Objectives
	Urban and Social Reforms	
		Analyze the reasons for the popularity of acculturation and Americanization programs.
		Describe the roles of Jane Addams, Jacob Riis, and Lincoln Steffens during the reform movements of the late 1800s and early 1900s.
		Explain the goals of the temperance movement and the Women's Christian Temperance Union.
		Explain the principles behind the social gospel movement.
	Reforming Business and Government	
		Describe the impact of legislation introduced to reform business during the Industrial Era.
		Explain how corruption negatively impacted business and government during the Gilded Age.
		Explain the provisions of the initiative, referendum, and recall.
	The Muckrakers	
		Define the term "muckraker," and explain the contributions of individual muckrakers to the progressive movement.
		Describe Upton Sinclair's goals when writing *The Jungle* , and evaluate the novel's effect on the era of progressive reform.
	Women's Rights and Suffrage	
		Examine the methods used by suffragists to win voting rights for women.
		Explain the goals of women progressives to improve women's position in society, including those of Margaret Sanger.
		Explain the role of women reformers in the early 1800s.
		Identify and describe influential people and events in the women's suffrage movement from the early 1800s to the passage of the 19th amendment.
	Civil Rights at the Turn of the Century	
		Analyze the impact of Jim Crow laws on African Americans.
		Describe the decision made by the Supreme Court in *Plessy v. Ferguson* , and explain the ruling's impact on segregation in the South.
		Identify Booker T. Washington and W. E. B. Du Bois, and compare and contrast their positions with regard to civil rights.
	The Progressive Movement	
		Analyze the importance of Theodore Roosevelt to the Progressive movement and to conservation efforts.
		Explain at least one decision by the Supreme Court that assisted or limited Progressive reform.
		List and describe at least five goals shared by Progressives.
Imperialism and the Great War		
	Expanding Borders	
		Describe two challenges facing the United States with regard to the construction of the Panama Canal.
		Evaluate the goals of Roosevelt's "Big Stick" foreign policy.
		Explain the arguments for and against American imperialism.

Unit	Lesson	Lesson Objectives
	The Spanish-American War	
		Explain how the Spanish-American War increased American influence around the world.
		Explain the principles of "yellow journalism," and evaluate its impact on US entry into the war.
		List and describe at least two factors which led to the US decision to declare war on Spain.
		Locate territories won by the United States following the Treaty of Paris (1898) on a world map.
	Neutrality and the War in Europe	
		Analyze the reasons for American isolationism and neutrality at the beginning of the war.
		Explain the long-term reasons for the alliances that formed in Europe prior to World War I.
		Identify the short-term crises that led to World War I.
	America in the Great War	
		Describe how technology influenced warfare and resulted in a stalemate on the war's fronts.
		Explain the war's impact on the home front, civil rights, and minorities.
		Identify and describe at least two factors that led to the United States' entry into World War I.
	Wilson and the War	
		Analyze the reasons why the US Senate rejected the Treaty of Versailles and proposals to join the League of Nations.
		Describe how Wilson's idealism embodied his Fourteen Points.
		Describe the provisions of the Treaty of Versailles.
		Identify the conflicting points of view that influenced the peace process.
	Prohibition	
		Describe the effects of the Scopes Trial on American culture and education.
		Explain the reasons for the passage of the Eighteenth Amendment and the Volstead Act.
		Identify the effects of Prohibition on American society.
	Society in the 1920s	
		Analyze the changing role of women in American society.
		Describe the growing importance of mass media and the entertainment industry, and identify examples of prominent actors, athletes, or musicians of the era.
		Explain how the works of prominent authors of the 1920s reflected changing American culture.
		Explain the influence of Jazz Age culture.
	The Great Migration	
		Analyze the contributions of African American authors to the Harlem Renaissance.
		Explain the importance of the Harlem Renaissance to American music.
		Identify the causes of the Great Migration and its effects on Northern cities.

Unit	Lesson	Lesson Objectives
The Great Depression		
	Roaring Economy to Great Depression	
		Explain how consumerism and mass production led to the economic growth of the 1920s.
		Explain the events that led to the Stock Market Crash of 1929.
		Identify and describe three causes of the Great Depression.
	American Life in the Great Depression	
		Describe at least three effects of the Great Depression on American society.
		Examine President Hoover's response to the Great Depression.
		Identify at least two causes of the Dust Bowl and explain why it led to widespread migration.
	Roosevelt's Hundred Days	
		Analyze the changing role of government caused by Roosevelt's New Deal reforms.
		Describe the legislation and programs instituted by President Roosevelt during his first Hundred Days in office.
		Examine the candidacy of Franklin Roosevelt and describe the contents of his campaign platform.
	The New Deal	
		Analyze the conflict between Roosevelt and those who opposed New Deal programs.
		Evaluate the long-term effects of New Deal programs, and how they impact American's expectations of government today.
		Identify the provisions passed during the Second New Deal, and describe their impact on American business and society.
World War II		
	Fascism and Aggression	
		Analyze the reaction in Europe and the US toward Hitler's actions.
		Describe acts of aggression committed by Germany and Japan during the 1930s.
		Describe individual liberties under fascism, and explain the differences between democratic and totalitarian forms of government.
		Explain the challenges facing Germany following World War I, and evaluate the effects of Hitler's rise to power.
	America's Entry into the War	
		Analyze how the US moved from isolationism to active involvement as the war progressed.
		Describe the events surrounding the bombing of Pearl Harbor and Americans' reactions to the attack.
		Trace the early course of the war from the invasion of Poland through the end of 1941.
	America and the War at Home	
		Describe how war production helped end the Great Depression.
		Explain how American war production gave the Allies an advantage over the Axis Powers.
		Explain how the US government, private industries, and the American public worked together to arm and equip American and Allied forces.
		Identify new technologies or advancements that were introduced as a result of the war.

Unit	Lesson	Lesson Objectives
	Internment and the Constitution	
		Describe the provisions of Korematsu v. US and explain why the Supreme Court upheld the legality of Japanese internment.
		Explain the effects of Executive Order 9066 and internment on Japanese Americans and other minority groups during the war.
		Identify the achievements of all-minority military units, including the Tuskegee Airmen, the Navajo Code Talkers, and Nisei regiments.
	The War in Europe	
		Analyze the challenges of fighting a two-front war, and explain why the Allies decided to pursue a "Europe-first" strategy.
		Describe the turning points in the European theater, including Stalingrad, the Normandy Invasion, and the Battle of the Bulge.
		Identify the members of the Axis Powers and the Allied forces.
	Turning Points in the Pacific	
		Describe Japanese resistance to American attacks as the war progressed and how this affected the American decision to use the atomic bomb.
		Describe the Allied "island-hopping" strategy in the Pacific, and identify significant battle locations.
		Evaluate why the Battle of Midway was a turning point in the Pacific.
		Explain the contributions of Americans in the Pacific theater, including those of Douglas MacArthur and Chester Nimitz.
	War Crimes and the Holocaust	
		Analyze the global community's response to the Holocaust.
		Describe the effects of the Holocaust, and identify the diverse groups of people targeted by Nazi Germany.
		Trace the development of Nazi anti-Semitic policies.
	End of the War in the Pacific	
		Describe the major events of the Manhattan Project and explain how it led to the development of the first nuclear weapon.
		Evaluate the Truman administration's decision to drop atomic weapons in Japan by describing arguments for and against the decision.
		Explain postwar measures instituted in Japan following the end of the war.
	Writing Workshop: Conducting Research to Write an Informative Essay	
		Research to gather relevant information.
		Support main ideas using concrete details, quotations, and other examples.
		Use MLA citations correctly.
		Write a clear and well-organized informative essay.

Unit	Lesson	Lesson Objectives
The Rise of the Cold War		
	The Cold War	
		Describe the origins of the United Nations.
		Explain how decisions made at the end of the war, and the post-war goals of the United States and USSR, contributed to the Cold War.
		Identify and describe actions taken by the United States to contain communism in Europe.
	The Korean War	
		Analyze the effects of the Korean War on the geography and politics of East Asia.
		Describe the course of the Korean War and the reasons for the war's outcome.
		Explain how the expansion of communism in Asia led to the Korean War.
	The Baby Boom	
		Analyze the societal changes that occurred during the 1950s, including the influence of new technologies.
		Describe the connections between car culture, new migration, and the growth of suburbs in American cities.
		Explain how a growing postwar economy led to a "baby boom."
	McCarthyism	
		Analyze the impact of McCarthyism on American society.
		Describe how Cold War fears led to increased suspicion of communist infiltration and spying in American society, and explain how these fears impacted views on civil liberties.
		Explain how the House Un-American Activities Committee (HUAC) impacted the American entertainment industry.
		Identify actions taken by the Truman administration to combat disloyalty in the federal government.
	Brinkmanship in the Cold War	
		Describe how the policy of containment led to increased American involvement in Vietnam.
		Identify and describe at least two effects of the arms race between the United States and the USSR.
		Identify and explain at least two effects of the Sputnik launch in the United States.
	Kennedy and the Cold War	
		Describe Kennedy's domestic policy with respect to education, civil rights, social issues, the economy, and the environment.
		Examine the effects of Kennedy's commitment to space programs during the space race.
		Explain how the Cold War influenced Kennedy's foreign policy.
		Identify the impact of Kennedy's assassination on the nation.
	The Vietnam War	
		Analyze the challenges facing American soldiers fighting the war in Vietnam.
		Describe the impact of the counterculture and the division in American society over support for the war.
		Examine the reasons for increased US military involvement in Vietnam.

Unit	Lesson	Lesson Objectives
	The Counterculture	
		Analyze the impact of the counterculture on American society.
		Describe the growing division in American society over support for the Vietnam War.
		Examine the impact of the antiwar movement.
	End of the War in Vietnam	
		Analyze the decision to pull US troops out of Vietnam.
		Examine the idea that 1968 was a turning point in American history.
		Summarize the effects of the Vietnam War on American society.
An Era of Cultural Change		
	The Civil Rights Movement Begins	
		Describe the provisions of *Brown v. Board of Education* and its immediate effect on schools.
		Discuss the role of the National Association for the Advancement of Colored People, the NAACP, in pursuing legal strategies to end segregation.
		Explain the factors that led to the *Brown v. Board of Education* decision.
		Explain the impact of the desegregation of baseball on American society.
	Organizing to Demand Rights	
		Analyze how civil rights advocacy groups used nonviolent resistance techniques to achieve their goals.
		Examine the importance of the Montgomery Bus Boycott in creating support for nonviolent resistance.
		Identify the role of the Nation of Islam and Malcolm X in the civil rights movement.
	Nonviolent Protest	
		Describe the impact of the violent resistance faced by protestors in Birmingham.
		Examine the resistance to federal desegregation and integration of universities in the South.
		Explain the challenges faced by voter registration campaigns in the southern United States.
	Civil Rights and Voting Rights	
		Analyze the effects of the 1964 Civil Rights Act.
		Describe the importance of the Selma voting rights marches.
		Examine the impact of the Voting Rights Act of 1965.
		Examine the role of the March on Washington in promoting and securing civil rights for African Americans.
	Other Perspectives on Civil Rights	
		Analyze the impact of violent race riots on US society.
		Describe the emergence of Cesar Chavez as a leader for farmworkers' rights and the Chicano movement.
		Explain the shift in focus within the civil rights movement in the late 1960s.
		Summarize the efforts made by other minority groups to achieve civil rights.

Unit	Lesson	Lesson Objectives
	Johnson's Great Society	
		Describe the steps taken by Johnson to help the country transition after the Kennedy assassination.
		Evaluate the successes and controversies created by Great Society programs.
		Identify the main components of Johnson's Great Society plan for America.
	The Warren Court	
		Analyze the impact of the Warren Court's decisions on First Amendment rights.
		Describe the positions taken by the Warren Court in regard to the right to privacy.
		Explain how the Warren Court clarified the rights of the accused.
		Identify the role of the Supreme Court in American law.
	Women's Rights Movement	
		Analyze the impact of Roe v. Wade on American society.
		Describe the reasons for a growing women's rights movement in the 1960s and 1970s.
		Examine the history and impact of the National Organization for Women.
The End of the Cold War		
	Nixon's Presidency	
		Analyze the US economy during Nixon's presidency.
		Describe Nixon's domestic policies, including his civil rights, social, and environmental policies.
		Examine Nixon's foreign policies in relation to China, the Soviet Union, and Latin America.
	Watergate and the Ford Years	
		Analyze the constitutional issues the Watergate scandal raised.
		Assess the challenges facing President Ford following Nixon's resignation.
		Explain the events of the Watergate scandal and how it was brought to public attention.
	The Economy in the 1970s	
		Analyze Carter's response to the economic crisis of the late 1970s.
		Describe the economic climate of the late 1970s.
		Examine the effects of the second oil shock of 1979 on the United States and the Carter administration.
	Carter and the Middle East	
		Explain President Carter's response to foreign crises in Afghanistan and Iran.
		Identify the effects of President Carter's efforts to promote détente and create peace agreements in the Middle East.
	Reagan and the 1980s	
		Analyze the effects of Reagan's conservative policies on domestic events.
		Describe the reasons for Reagan's victory in the election of 1980.
		Examine Reagan's economic policy and its effect on the US economy.

Unit	Lesson	Lesson Objectives
	Reagan and the Evil Empire	
		Describe Reagan's approach to direct dealings with the USSR.
		Evaluate Reagan's foreign policy in Latin America.
		Identify the growing effect of terrorism on American foreign policy in the Middle East.
	The End of the Cold War	
		Describe the significance of the fall of the Berlin Wall.
		Examine the role of the Bush administration and Gorbachev's reforms in the collapse of the Soviet Union.
		Explain the ongoing role of communism in China and Cuba.
The Nation in Today's World		
	The Bush Presidency	
		Analyze the effects of economic challenges, including taxes and the savings and loan scandal, on Bush's presidency.
		Describe the environmental and social issues facing the Bush administration.
		Examine Bush's foreign policy with respect to Latin America and the Middle East.
	The Clinton Administration	
		Describe the impact of social legislation and initiatives during the Clinton administration.
		Explain Clinton's approach to foreign policy crises in the Caribbean, Africa, and Eastern Europe.
		Identify Clinton's economic plans and policies.
	Partisan Conflict in Government	
		Analyze the impact of the debates over domestic policies on the relationship between President Clinton and Congress.
		Describe the reasons for Clinton's impeachment and the failure of his impeachment charges.
		Identify the importance of the 1994 midterm election on the Clinton presidency.
	9/11/2001	
		Analyze the effects of the attacks on American society and the economy.
		Describe the impact of 9/11 on American government and policy.
		Summarize the events of 9/11.
	America in the Bush Years	
		Describe the Bush administration's response to domestic crises, such as Hurricane Katrina and the recession of 2008.
		Evaluate the impact of the Bush administration's domestic policy with respect to education, the economy, and immigration.
		Summarize the events and the controversy surrounding the 2000 presidential election.
	Military Intervention in the Middle East	
		Analyze the effects of the United States' decision to go to war with Iraq.
		Describe US involvement in Afghanistan and the expansion of the War on Terror.

Unit	Lesson	Lesson Objectives
	The Obama Presidency	
		Analyze the foreign policy challenges of the Obama presidency.
		Discuss the historical significance of the 2008 presidential election.
		Examine the domestic policies of the Obama administration, and explain the effects of the recession on his presidency.
	Immigration and Demographic Change	
		Analyze the effects of continuing immigration to the United States from the 1960s to today.
		Analyze the effects of demographic change on American society.
		Describe major migration trends within the United States.
		Identify the effects of the aging baby boom generation.
	America and the Global Economy	
		Analyze the relationship between the United States economy and the global economy through a study of the financial crisis of 2008.
		Describe the key features of the global economy.
		Identify the major global economic institutions that influence trade and monitor the world economy.
	Technology and its Effects on Modern America	
		Describe the influence of the development of computers and the Internet on the United States.
		Explain how new technology has affected various sectors of the American economy and the American way of life.

Standard ID	Standard Text	Edgenuity Lesson Name
PA.5.W.	Civics and Government (WORLD HISTORY 1450-PRESENT)	
5.1.W.	Principles and Documents of Government	
	Laws and Government	
5.1.W.B.1.	Analyze how conflict and cooperation among groups and organizations have influenced the history and development of the world. (Reference History Standards 8.3.9.D.)	
		World War I Ends
		European Union
		International Organizations
		Women's Rights and Roles
5.1.W.B.2.	Employ historical examples and political philosophy to evaluate the major arguments advanced for the necessity of government.	
		Absolute Monarchy in Europe
		The Glorious Revolution
		The Enlightenment
		The French Revolution Begins
		The Reign of Terror
		Age of Revolutions
		Latin American Revolutions
		Revolution in Russia
		Authoritarianism, Fascism, and Dictators
		Stalin and the Soviet Union
		Communism in China
		Modernization in China
		Compare and Contrast Revolutions
	Symbols	
5.1.W.F.	Evaluate the role of nationalism in uniting and dividing citizens.	
		Rise of the Nation-State
		Indian Independence
		Challenges of Independence in Asia
		Decolonization in Africa
		South Africa and Apartheid
		Latin American Reform
		Challenges in South America
		Nationalism in the Middle East
		Ethnic and Religious Conflict

Standard ID	Standard Text	Edgenuity Lesson Name
5.2.W.	Rights and Responsibilities of Citizenship Civics Rights and Responsibilities	
5.2.W.A.	Contrast the rights and responsibilities of a citizen in a democracy with a citizen in an authoritarian system.	
		The Enlightenment
		The American Revolution
		Authoritarianism, Fascism, and Dictators
		Rise of Hitler
		Women's Rights and Roles
	Conflict and Resolution	
5.2.W.B.	Analyze strategies used to resolve conflicts in society and government.	
		European Union
		International Organizations
		Women's Rights and Roles
	Competent and Responsible Citizens	
5.2.W.D.	Evaluate and demonstrate what makes competent and responsible citizens.	
5.3.W.	How Government Works Systems of Government	
5.3.W.J.	Compare and contrast various systems of government.	
		Absolute Monarchy in Europe
		The Enlightenment
		The American Revolution
		Rise of the Nation-State
		Authoritarianism, Fascism, and Dictators
		Rise of Hitler
		Stalin and the Soviet Union
		Communism in China
		Origins of the Cold War
		Cold War at Its Height
		The Cold War around the World
		End of the Cold War
		European Union
		Modernization in China

Standard ID	Standard Text	Edgenuity Lesson Name
5.4.W.	How International Relationships Function International Organizations	
5.4.W.C.	Identify the role of international organizations.	
		International Organizations Economic Globalization
PA.6.W.	Economics (WORLD HISTORY 1450-PRESENT)	
6.1.W.	Scarcity and Choice Scarcity and Choice	
6.1.W.A.	Analyze how choices are made because of scarcity.	
		Economic Globalization Predicting the Future: Resources in the Middle East
	Limited Resources	
6.1.W.B.	Analyze how conflict and cooperation among groups and organizations have impacted the control of limited resources in the world.	
		Conquest of the Americas Economic Globalization
	Opportunity Costs	
6.1.W.C.	Analyze the opportunity cost of decisions made by individuals, businesses, communities, and nations.	
		Global Economic Crisis Modernization in China Economic Globalization
6.2.W.	Markets and Economic Systems Goods and Services	
6.2.W.A.	Evaluate the flow of goods and services in an international economy.	
		Economic Globalization
	Advertising and Media	
6.2.W.C.	Evaluate the impact of advertising and media on individual and group behavior throughout world history.	
		A New Kind of War Japan's Pacific Campaign
	Price Determination	
6.2.W.D.	Explain how the laws of supply and demand impacted individuals and groups behavior over time.	
		Economic Globalization

Standard ID	Standard Text	Edgenuity Lesson Name
	Economic Health	
6.2.W.E.1.	Analyze the impact of the business cycle on individual and group behavior over time.	
		Global Economic Crisis
6.2.W.E.2.	Analyze the characteristics of economic expansion, recession, and depression.	
		Global Economic Crisis
	Private Economic Institutions	
6.2.W.F.	Analyze the impact of private economic institutions on individuals and groups over time. Standards 8.4.9.C.)	
		India under British Rule
		Global Economic Crisis
	Economic Systems	
6.2.W.G.	Compare and contrast various economic systems.	
		New Economic Theories
		Economic Globalization
6.3.W.	Functions of Government	
	Government Involvement in the Economy	
6.3.W.B.	Analyze how conflict and cooperation among groups and organizations have influenced the history and development of the world.	
6.3.W.B.1.	Ethnicity and Race	
		Three Worlds Meet
		The Struggle for North America
		The New Imperialism
		Spheres of Influence in Muslim Lands
		India under British Rule
		Imperialism in East Asia
		Imperialism in Africa
6.3.W.B.2.	Working conditions	
		Impact of the Industrial Age
		Effects of Industrialization
6.3.W.B.3.	Immigration	
		Effects of Industrialization

Standard ID	Standard Text	Edgenuity Lesson Name
6.3.W.B.4.	Military conflict	
		Conquest of the Americas
		The Struggle for North America
		Spheres of Influence in Muslim Lands
		Imperialism in East Asia
		The Rise of Modern Japan
		Compare and Contrast Revolutions
6.3.W.B.5.	Economic Stability (Reference History Standards 8.3.9.D.)	
		Global Economic Crisis
	Government's Role in International Trade	
6.3.W.D.	Analyze how conflict and cooperation among groups and organizations have influenced the history and development of the world.	
6.3.W.D.1.	Ethnicity and Race	
		Three Worlds Meet
		The Struggle for North America
		The New Imperialism
		Spheres of Influence in Muslim Lands
		India under British Rule
		Imperialism in East Asia
		Imperialism in Africa
6.3.W.D.2.	Working conditions	
		Impact of the Industrial Age
		Age of Reform
		Effects of Industrialization
6.3.W.D.3.	Immigration	
		Effects of Industrialization
6.3.W.D.4.	Military conflict	
		Conquest of the Americas
		The Struggle for North America
		Spheres of Influence in Muslim Lands
		Imperialism in East Asia
		The Rise of Modern Japan
		World War I Begins
		A New Kind of War
		WWII Begins

Standard ID	Standard Text	Edgenuity Lesson Name
6.3.W.D.4.	Military conflict *(Cont'd.)*	Japan's Pacific Campaign Compare and Contrast Revolutions
6.3.W.D.5.	Economic Stability (Reference History Standards 8.3.9.D.)	Economic Globalization
6.4.W.	Economic Interdependence Specialization	
6.4.W.A.	Explain how specialization contributes to economic interdependence on a national and international level.	Economic Globalization
	Trade	
6.4.W.B.	Explain how trade contributes to economic interdependence.	Economic Globalization
	Multinational and Non-Governmental Organizations	
6.4.W.C.	Compare the role groups and individuals played in the social, political, cultural, and economic development throughout world history. (Reference History Standards 8.4.9.A.)	The French Revolution Begins The Reign of Terror Age of Revolutions Latin American Revolutions Revolution in Russia Economic Globalization Compare and Contrast Revolutions
	Factors Contributing to Economic Interdependence	
6.4.W.D.	Explain how the level of development of transportation, communication networks, and technology affect economic interdependence.	Economic Globalization
6.5.W.	Income, Profit, and Wealth Distribution of Wealth	
6.5.W.E.	Compare distribution of wealth across nations.	Economic Globalization

Standard ID	Standard Text	Edgenuity Lesson Name
PA.7.W.	Geography (WORLD HISTORY 1450-PRESENT)	
7.1.W.	Basic Geographic Literacy	
	Geographic Tools	
7.1.W.A.	Use geographic tools to analyze information about the interaction between people, places, and the environment.	
		Predicting the Future: Resources in the Middle East
7.2.W.	Physical Characteristics of Places and Regions	
	Physical Characteristics	
7.2.W.A.	Analyze the physical characteristics of places and regions, including the interrelationships among the components of Earth's physical systems.	
		Predicting the Future: Resources in the Middle East
	Physical Processes	
7.2.W.B.	Analyze the significance of physical processes in shaping the character of places and regions.	
		Predicting the Future: Resources in the Middle East
7.3.W.	Human Characteristics of Places and Regions	
	Human Characteristics	
7.3.W.A.	Analyze the human characteristics of places and regions using the following criteria:	
7.3.W.A.1.	Population	
		Civilizations in North and South America
		Demographics and Population
7.3.W.A.2.	Culture	
		The Renaissance
		Literature and Philosophy of the Renaissance
		Artistic Achievements of the Renaissance
		The Northern Renaissance
		Civilizations in North and South America
		Conquest of the Americas
		Three Worlds Meet
		The Struggle for North America
		Cultural and Intellectual Trends
7.3.W.A.3.	Settlement	
		The Industrial Age
		Effects of Industrialization

Standard ID	Standard Text	Edgenuity Lesson Name
7.3.W.A.4.	Economic activities	
		Voyages of Exploration
		The Industrial Age
		Communism in China
		Collapse of Communism
		Modernization in China
		Economic Globalization
7.3.W.A.5.	Political activities	
		Communism in China
		Collapse of Communism
		Modernization in China
7.4.W.	Interactions Between People and the Environment	
	Impact of Physical Systems on People	
7.4.W.A.	Analyze the effects of changes in the physical systems.	
		Impact of Science and Technology
		Predicting the Future: Resources in the Middle East
	Impact of People on Physical Systems	
7.4.W.B.	Analyze the effects of human activity on the physical systems.	
		Impact of Science and Technology
		Predicting the Future: Resources in the Middle East
PA.8.W.	History (WORLD HISTORY 1450-PRESENT)	
8.1.W.	Historical Analysis and Skills Development	
	Continuity and Change over Time	
8.1.W.A.	Evaluate patterns of continuity and change over time, applying context of events.	
		Conquest of the Americas
		The Struggle for North America
		The Scientific Revolution
		Terrorism

Standard ID	Standard Text	Edgenuity Lesson Name
	Fact/Opinion and Points of View	
8.1.W.B.	Evaluate the interpretation of historical events and sources, considering the use of fact versus opinion, multiple perspectives, and cause and effect relationships.	The Glorious Revolution The Scientific Revolution Age of Revolutions Latin American Revolutions Spheres of Influence in Muslim Lands India under British Rule World War I Begins Revolution in Russia Stalin and the Soviet Union Communism in China Latin American Reform Conflict in the Middle East Genocide
	Research	
8.1.W.C.	Construct research on a historical topic using a thesis statement and demonstrate use of appropriate primary and secondary sources. (Reference RWSL Standard 1.8.8 Research)	The Northern Renaissance The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Indian Independence Genocide Writing Workshop: Who are the Most Influential People in History? Create Lesson: Creating a PowerPoint from Your Essay

Standard ID	Standard Text	Edgenuity Lesson Name
8.4.W.	World History Contributions of Individuals and Groups (World)	
8.4.W.A.	Evaluate the role groups and individuals played in the social, political, cultural, and economic development throughout world history.	The Renaissance Literature and Philosophy of the Renaissance Artistic Achievements of the Renaissance The Northern Renaissance The Protestant Reformation The Counter-Reformation Voyages of Exploration Absolute Monarchy in Europe The Glorious Revolution The Scientific Revolution The Enlightenment Napoleon's Rise and Fall Latin American Revolutions Age of Reform New Economic Theories Revolution in Russia Global Economic Crisis Rise of Hitler Cultural and Intellectual Trends Stalin and the Soviet Union Communism in China Origins of the Cold War End of the Cold War Modernization in China Indian Independence Challenges of Independence in Asia Decolonization in Africa South Africa and Apartheid Latin American Reform Challenges in South America

Standard ID	Standard Text	Edgenuity Lesson Name
8.4.W.A.	Evaluate the role groups and individuals played in the social, political, cultural, and economic development throughout world history. *(Cont'd.)*	Israel Nationalism in the Middle East Women's Rights and Roles Impact of Science and Technology Demographics and Population
	Historical Documents, Artifacts, and Sites (World)	
8.4.W.B.	Evaluate the importance of historical documents, artifacts, and sites which are critical to world history.	The Renaissance Literature and Philosophy of the Renaissance Artistic Achievements of the Renaissance The Northern Renaissance The Enlightenment The American Revolution World War I Ends Victory for the Allies
	Impact of Continuity and Change (World)	
8.4.W.C.	Evaluate how continuity and change have impacted the world today.	
8.4.W.C.1.	Belief systems and religions	The Protestant Reformation The Counter-Reformation Rise of Hitler The Holocaust Israel Ethnic and Religious Conflict
8.4.W.C.2.	Commerce and industry	The Industrial Age Impact of the Industrial Age New Economic Theories Economic Globalization Effects of Industrialization

Standard ID	Standard Text	Edgenuity Lesson Name
8.4.W.C.3.	Technology	
		Voyages of Exploration
		The Scientific Revolution
		The Industrial Age
		Impact of the Industrial Age
		A New Kind of War
		Victory for the Allies
		Impact of Science and Technology
		Effects of Industrialization
8.4.W.C.4.	Politics and government	
		Absolute Monarchy in Europe
		The Glorious Revolution
		The Enlightenment
		The American Revolution
		Napoleon's Rise and Fall
		International Organizations
8.4.W.C.5.	Physical and human geography	
		Demographics and Population
		Economic Globalization
		Predicting the Future: Resources in the Middle East
8.4.W.C.6.	Social organization	
		Women's Rights and Roles
		Impact of Science and Technology
		Demographics and Population
	Conflict and Cooperation (World)	
8.4.W.D.	Evaluate how conflict and cooperation among groups and organizations have impacted the development of the world today, including its effects on Pennsylvania.	
		Conflict in the Middle East
		International Organizations
		Terrorism

Standard ID	Standard Text	Edgenuity Lesson Name
	PA Core Standards for Reading for History and Social Studies	
PA.CC.8.5.11-12.	Reading Informational Text: Students read, understand, and respond to informational text - with emphasis on comprehension, making connections among ideas and between texts with focus on textual evidence.	
	Key Ideas and Details	
CC.8.5.11-12.A.	Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.	
		Age of Revolutions Authoritarianism, Fascism, and Dictators Decolonization in Africa European Union Impact of Science and Technology Impact of the Industrial Age Imperialism in Africa Imperialism in East Asia Latin American Reform Latin American Revolutions Modernization in China Origins of the Cold War Rise of Hitler Stalin and the Soviet Union The American Revolution The Counter-Reformation The Glorious Revolution The Holocaust The New Imperialism
CC.8.5.11-12.B.	Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.	
		Age of Revolutions Authoritarianism, Fascism, and Dictators Decolonization in Africa European Union Impact of Science and Technology Impact of the Industrial Age Imperialism in Africa

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.5.11-12.B.	Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas. *(Cont'd.)*	Imperialism in East Asia Latin American Reform Latin American Revolutions Modernization in China Origins of the Cold War Rise of Hitler Stalin and the Soviet Union The American Revolution The Counter-Reformation The Glorious Revolution The Holocaust The New Imperialism
CC.8.5.11-12.C.	Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.	Conflict in the Middle East India under British Rule
	Craft and Structure	
CC.8.5.11-12.D.	Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).	Age of Revolutions Authoritarianism, Fascism, and Dictators Decolonization in Africa European Union Impact of Science and Technology Impact of the Industrial Age Imperialism in Africa Imperialism in East Asia Latin American Reform Latin American Revolutions Modernization in China Origins of the Cold War Rise of Hitler

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.5.11-12.D.	Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).	
	(Cont'd.)	Stalin and the Soviet Union
		The American Revolution
		The Counter-Reformation
		The Glorious Revolution
		The Holocaust
		The New Imperialism
CC.8.5.11-12.F.	Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.	
		Absolute Monarchy in Europe
		Genocide
		Revolution in Russia
		The Enlightenment
		World War I Begins
	Integration of Knowledge and Ideas	
CC.8.5.11-12.G.	Integrate and evaluate multiple sources of information presented in diverse formats and media e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.	
		A New Kind of War
		Civilizations in North and South America
		Collapse of Communism
		Demographics and Population
		Economic Globalization
		Japan's Pacific Campaign
		The Industrial Age
		Women's Rights and Roles
CC.8.5.11-12.H.	Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.	
		Genocide
		New Economic Theories

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.5.11-12.I.	Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.	
		New Economic Theories
		Origins of the Cold War
		The Enlightenment
		The New Imperialism
	Range and Level of Complex Texts	
CC.8.5.11-12.J.	By the end of grade 12, read and comprehend history/social studies texts in the grades 11-CCR text complexity band independently and proficiently.	
		Age of Revolutions
		Authoritarianism, Fascism, and Dictators
		Decolonization in Africa
		European Union
		Impact of Science and Technology
		Impact of the Industrial Age
		Imperialism in Africa
		Imperialism in East Asia
		Latin American Reform
		Latin American Revolutions
		Modernization in China
		Origins of the Cold War
		Rise of Hitler
		Stalin and the Soviet Union
		The American Revolution
		The Counter-Reformation
		The Glorious Revolution
		The Holocaust
		The New Imperialism

Standard ID	Standard Text	Edgenuity Lesson Name
	PA Core Standards for Reading for History and Social Studies	
	Writing	
CC.8.6.11-12.A.1.	Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.	
	Text types and purposes	
CC.8.6.11-12.A.1.	Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.	
		India under British Rule
		The Northern Renaissance
CC.8.6.11-12.A.2.	Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.	
		India under British Rule
		The Northern Renaissance
CC.8.6.11-12.A.3.	Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.	
		India under British Rule
		The Northern Renaissance
CC.8.6.11-12.A.4.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	
		India under British Rule
		The Northern Renaissance
CC.8.6.11-12.A.5.	Provide a concluding statement or section that follows from or supports the argument presented.	
		India under British Rule
		The Northern Renaissance

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.6.11-12.B.1.	Write informative/explanatory texts, including the narration fo historical events, scientifici procedures/experiments, or technical processes.	
CC.8.6.11-12.B.1.	Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.	Compare and Contrast Revolutions End of the Cold War Indian Independence The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?
CC.8.6.11-12.B.2.	Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.	Compare and Contrast Revolutions End of the Cold War Indian Independence The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?
CC.8.6.11-12.B.3.	Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.	Compare and Contrast Revolutions End of the Cold War Indian Independence The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.6.11-12.B.4.	Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.	Compare and Contrast Revolutions End of the Cold War Indian Independence The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?
CC.8.6.11-12.B.5.	Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).	End of the Cold War Indian Independence The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?
	Production and distribution of writing	
CC.8.6.11-12.C.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Compare and Contrast Revolutions Create Lesson: Creating a PowerPoint from Your Essay End of the Cold War India under British Rule Indian Independence The Northern Renaissance The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.6.11-12.D.	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	Create Lesson: Creating a PowerPoint from Your Essay End of the Cold War India under British Rule Indian Independence The Northern Renaissance The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?
CC.8.6.11-12.E.	Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.	Create Lesson: Creating a PowerPoint from Your Essay End of the Cold War India under British Rule Indian Independence The Northern Renaissance The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?
	Research to build and present knowledge	
CC.8.6.11-12.F.	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	Genocide Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?

Standard ID	Standard Text	Edgenuity Lesson Name
CC.8.6.11-12.G.	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	Genocide Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?
CC.8.6.11-12.H.	Draw evidence from informational texts to support analysis, reflection, and research.	Genocide Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?
	Range of writing	
CC.8.6.11-12.I.	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	A New Kind of War Artistic Achievements of the Renaissance Compare and Contrast Revolutions Create Lesson: Creating a PowerPoint from Your Essay End of the Cold War Genocide India under British Rule Indian Independence The Northern Renaissance The Protestant Reformation Writing Workshop: Geography, Industrialization, and Imperialism Writing Workshop: Who are the Most Influential People in History?

Unit	Lesson	Lesson Objectives
The Renaissance and the Reformation		
	The Renaissance	
		Define the term renaissance, and explain how it resulted in new ideas.
		Describe the influence of the Medici and other merchant families during the Renaissance.
		Explain why the Renaissance began in northern Italy.
	Literature and Philosophy of the Renaissance	
		Explain how Renaissance writers and philosophers incorporated new ideas into their works.
		Explain the effects of humanism on Renaissance society.
		Identify important philosophers and writers from the Renaissance and their works.
	Artistic Achievements of the Renaissance	
		Compare Renaissance art to medieval art with regard to theme, technique, and purpose.
		Describe the characteristics of Renaissance art.
		Identify significant Renaissance artists and their works.
	The Northern Renaissance	
		Describe why Italian Renaissance ideas spread across Europe.
		Explain the impact of the Gutenberg press on European society.
		Identify Northern Renaissance artists and writers and their contributions.
	The Protestant Reformation	
		Describe Martin Luther's criticism of the church and his impact on the Reformation.
		Explain the circumstances surrounding the Reformation in England.
		Explain the origin and effects of Calvinism.
	The Counter-Reformation	
		Describe the religious conflict that affected England following the Reformation.
		Explain how the reformation led to war in Germany.
		Identify the ideas of the Counter Reformation and how they impacted European society.
Exploration and Conquest		
	Civilizations in North and South America	
		Describe the social, political, and economic structure of the Inca and Aztec empires.
		Explain ways in which early American civilizations adopted features of earlier civilizations.
		Identify the characteristics of early American civilizations.
	Voyages of Exploration	
		Determine how new technologies improve travel for exploration.
		Explain European motivations for exploration.
		Identify the impact each exploration and explorer made on society.

Unit	Lesson	Lesson Objectives
	Conquest of the Americas	
		Describe the Spanish conquest of the Aztec and Inca empires.
		Explain Spain's motivations for colonization in the New World.
		Explain the effects of Spanish colonization on the American Indians in the New World.
	Three Worlds Meet	
		Describe the impact of the Triangular Trade on the African people.
		Determine the impact of the Columbian Exchange on Old World and New World societies.
		Explain how the Commercial Revolution impacted Europe.
		Explain the roles of explorers and conquistadors.
	The Struggle for North America	
		Determine how different countries ruled their colonies in North America.
		Identify what led to conflict between the settlers and American Indians.
		Identify what made North America so appealing to European countries.
Absolutism and the Rising Tide of Revolution		
	Absolute Monarchy in Europe	
		Describe the development of absolute rule in Spain, France, and Russia.
		Explain how absolutism changed European government.
		Explain the characteristics of absolute rule.
	The Glorious Revolution	
		Analyze the events surrounding the English Civil War.
		Describe the causes and effects of the Glorious Revolution.
		Describe the relationship between the monarchs of England and parliament from the reign of Elizabeth I up to the English Civil War.
	The Scientific Revolution	
		Describe the causes and effects of the scientific revolution.
		Explain how scientific thought changed from ancient times through the scientific revolution.
		Identify the achievements and contributions of scientific thinkers during the scientific revolution.
	The Enlightenment	
		Analyze the factors that led to the Enlightenment.
		Analyze the ideas and philosophies of Enlightenment thinkers.
		Describe the impact of the Enlightenment on government and society, including its effect on the rights of women.
	The American Revolution	
		Analyze primary source documents important to the American Revolution.
		Determine the global impact of the American Revolution.
		Explain how the Age of Enlightenment contributed to the American Revolution.

Unit	Lesson	Lesson Objectives
	The French Revolution Begins	
		Analyze the events that occurred in the early days of the Revolution.
		Describe the causes of the French Revolution.
		Describe the social and economic inequalities that existed in France under the Old Regime.
	The Reign of Terror	
		Analyze the European reaction to the events of the French Revolution.
		Describe the events of the French Revolution following the storming of the Bastille.
		Explain the events and effects of the Reign of Terror.
	Compare and Contrast Revolutions	
		Analyze the outcomes of the Glorious, American, and French Revolutions.
		Define the goals of the Glorious, American, and French Revolutions.
		Identify the causes of the Glorious, American, and French Revolutions.
	Napoleon's Rise and Fall	
		Analyze how Napoleon used a coup d'etat to establish absolute rule.
		Describe how Napoleon's rules reflected the ideals of the Enlightenment.
		Explain the factors that led to the fall of Napoleon's empire.
Nationalism and Industrialism		
	Age of Revolutions	
		Analyze the impact of the Congress of Vienna.
		Evaluate how revolutionary movements impacted Europe.
		Explain the underlying causes and effects of the revolts in France.
	Rise of the Nation-State	
		Describe the concept of nationalism.
		Describe the impact of nationalism on the unification of Germany.
		Describe the impact of nationalism on the unification of Italy.
	Latin American Revolutions	
		Describe the causes and effects of the Revolution in Haiti.
		Explain how Latin American countries gained independence.
		Explain how the challenges facing Latin American countries following their independence led to political instability.
	The Industrial Age	
		Analyze why the Industrial Revolution began in England.
		Examine how the Industrial Revolution led to improvements in transportation.
		Explain the impact of the agricultural and industrial revolutions on society.

Unit	Lesson	Lesson Objectives
	Effects of Industrialization	
		Analyze the effects of population growth on cities and their residents.
		Describe the reasons for the rise of immigration in the Industrial Era.
		Explain why urbanization occurred during the Industrial Era.
	Impact of the Industrial Age	
		Explain how industrialization spread from Britain to the United States and the continent of Europe.
		Explain the impact of industrialization on culture.
		Identify innovations and advancements that resulted from industrialization.
	Age of Reform	
		Describe the reform movements of the 1800s.
		Explain steps taken by workers and unions to improve working conditions.
	New Economic Theories	
		Describe the principles of capitalism as defined by Adam Smith.
		Explain how problems arising from industrialization led to new economic theories.
		Explain the principles of socialism and communism.
Imperialism and the Great War		
	The New Imperialism	
		Analyze the social reasons for imperialism and its spread.
		Describe the characteristics and causes of imperialism.
		Evaluate the similarities and differences between new and old imperialism.
	Spheres of Influence in Muslim Lands	
		Describe the course of British imperialism in Egypt.
		Examine how European powers created imperialist states in Muslim lands.
		Explain the causes and effects of the Crimean War.
	India under British Rule	
		Describe the effects of British Imperialism on the population of India.
		Explain how the East India Company colonized and ruled territory in India.
		Explain the causes and effects of the creation of the British Raj.
	Imperialism in East Asia	
		Analyze the reasons for the fall of the Chinese imperial government.
		Explain how European powers increased their influence in China.
		Identify the causes and effects of the Opium Wars.

Unit	Lesson	Lesson Objectives
	The Rise of Modern Japan	
		Analyze the shift of Japan from isolation to an imperialistic nation.
		Explain how Japan was able to win the Sino-Japanese and Russo-Japanese Wars
		Explain how the Meiji restoration transformed Japan.
	Imperialism in Africa	
		Describe how Europeans took control of Africa through colonization.
		Describe the motivations for imperialism in Africa.
		Explain the political, social, and economic effects of imperialism.
	Writing Workshop: Geography, Industrialization, and Imperialism	
		Construct an argumentative essay that supports a specific claim or idea.
		Organize and write a clear and coherent argumentative essay based on reason and evidence using a style appropriate to purpose and audience.
		Revise, edit, and rewrite for ideas, organization, and voice.
		Support a claim with specific, textual evidence.
	World War I Begins	
		Analyze the causes of World War I.
		Describe the events that finally led to the declaration of war.
		Explain factors that contributed to tensions among European powers.
	A New Kind of War	
		Describe the effects of new technology on warfare.
		Explain how trench warfare created a stalemate.
		Explain the characteristics of total warfare.
	World War I Ends	
		Analyze the provisions of the Treaty of Versailles.
		Explain why Russia exited the war.
		Identify reasons why the United States entered the war.
The Interwar Years and World War II		
	Revolution in Russia	
		Analyze the causes and effects of the Russian Revolution.
		Describe life in Russia under the tsars.
		Explain the economic, political, and social changes made by the Communists after gaining power.
	Global Economic Crisis	
		Analyze the global effects of the Great Depression.
		Explain how countries around the world responded to the Great Depression.
		Identify the economic changes that occurred in the United States and Europe after World War I.

Unit	Lesson	Lesson Objectives
	Cultural and Intellectual Trends	
		Describe new scientific advancements of the early 1900s.
		Explain how World War I influenced literature.
		Identify social and cultural changes that occurred in the early 1900s.
	Authoritarianism, Fascism, and Dictators	
		Describe how Spain shifted to a dictatorship.
		Describe the effects of Japan's shift to military rule.
		Explain how Mussolini established a totalitarian government.
		Explain the characteristics of totalitarian government.
	Rise of Hitler	
		Analyze the tactics used by Hitler to form the Nazi party.
		Describe the growth of Nazi expansion and aggression in the 1930s.
		Explain how Nazi rule impacted the lives of German people.
	WWII Begins	
		Describe the events surrounding Hitler's invasion of Russia.
		Explain Hitler's strategy for fighting France and Britain.
		Identify how German aggression led to war in Europe.
	Japan's Pacific Campaign	
		Describe the events of the war in the Pacific through 1942, including allied strategies for victory.
		Explain the events that led to the entry of the United States into World War II.
	The Holocaust	
		Describe Hitler's plan to commit genocide.
		Describe the discrimination faced by Jews in Nazi Germany.
		Identify the anti-Semitism that led to the Holocaust.
	Victory for the Allies	
		Analyze how the Allies achieved victory in the Pacific.
		Describe allied strategies for winning the war in Europe.

Unit	Lesson	Lesson Objectives
Communism and the Cold War		
	Stalin and the Soviet Union	
		Describe the characteristics and effects of Stalin's police state.
		Explain the effects of Stalin's plan for modernization in industry and agriculture.
		Identify changes to society under Stalin's rule.
	Communism in China	
		Describe the causes and effects of China's civil war.
		Explain how the People's Republic of China was created.
		Explain the causes of the 1911 revolution in China.
	Origins of the Cold War	
		Analyze the importance of the Berlin blockade in the growth of the Cold War.
		Explain how the policy of containment was reflected in the Truman Doctrine and the Marshall Plan.
		Identify events that led to the division of Europe into eastern and western blocs.
	Cold War at Its Height	
		Explain why there was a race for arms and space between the United States and the Soviet Union.
		Identify the effects of the Cold War on Korea.
		Identify the effects of the Cold War on Vietnam.
	The Cold War around the World	
		Describe strategies used by the United States and the Soviet Union and their allies to fight the Cold War.
		Explain how the Cold War led to conflict in Latin America.
		Explain how the Cold War led to conflict in the Middle East.
	End of the Cold War	
		Describe the reforms enacted by Mikhail Gorbachev.
		Explain why relations between the United States and the Soviet Union improved.
		Explain why the Soviet Union collapsed.
	Collapse of Communism	
		Describe how eastern Europe began to shift from communist forms of government.
		Explain the effects of the breakup of Yugoslavia.
		Explain the effects of the reunification of Germany.
	European Union	
		Describe how European nations increased their cooperation following the end of the Cold War.
		Explain how the collapse of the Soviet Union influenced Europe.

Unit	Lesson	Lesson Objectives
	Modernization in China	
		Analyze effects of the Cultural Revolution.
		Explain reasons for China's economic expansion.
		Identify ways in which Mao Zedong attempted to modernize China.
Decolonization and Independence		
	Indian Independence	
		Compare and contrast views on the partition of India.
		Explain Gandhi's strategy for winning independence.
		Identify the challenges facing India following independence.
	Challenges of Independence in Asia	
		Describe how the Philippines gained its independence from the United States.
		Explain how European colonies in southeast Asia gained independence.
		Explain success and challenges facing former colonies in Southeast Asia.
	Decolonization in Africa	
		Evaluate the formation of new governments.
		Identify the challenges of decolonization in Africa.
		Identify the motives of African colonies' fight for independence.
	South Africa and Apartheid	
		Analyze how democracy evolved in South Africa.
		Identify how racial conflict was a result of colonial rule.
		Identify the effects of apartheid.
	Latin American Reform	
		Describe how Mexico instituted a democratic government.
		Examine how Latin America experimented with different forms of government.
		Explain the causes and effects of the Mexican Revolution.
	Challenges in South America	
		Analyze factors that led to the end of military rule in Argentina.
		Examine events in Chile's transition toward democracy.
		Identify events in Brazil's transition to democracy.
	Israel	
		Analyze the factors that led to increased turmoil between Jews and Arabs.
		Examine various conflicts between Israel and Arab states.
		Identify reasons for Palestinian independence.

Unit	Lesson	Lesson Objectives
	Nationalism in the Middle East	
		Analyze how fundamentalism and the Arab Spring have affected the region.
		Describe the events surrounding the Iranian Revolution.
		Explain the effects of the growth of Arab nationalism.
	Conflict in the Middle East	
		Describe the causes and effects surrounding the Gulf War.
		Describe the US response to 9/11.
		Explain the events surrounding the formation of Al-Qaeda and its attack on the United States.
	Predicting the Future: Resources in the Middle East	
		Examine data and maps to analyze the relationship between population distribution and resources in the Middle East.
		Identify problems associated with limited resources in the Middle East.
		Make predictions about the social, economic, and environmental impacts of relying on the process of desalination for the water supply.
Modern Issues in a Global Society		
	International Organizations	
		Analyze the purpose of different world organizations.
		Examine the function of different world organizations.
		Identify different world organizations.
	Terrorism	
		Analyze factors that contribute to the growth of terrorist organizations.
		Define terrorism and examine its history.
		Identify the role of counterterrorist organizations.
	Ethnic and Religious Conflict	
		Identify the relationships between ethnic nationalism, self-determination, and conflict.
		Understand the concepts of ethnicity, religion, and nationalism.
	Genocide	
		Explain the meaning of genocide.
		Identify acts of genocide of the twentieth century.
	Women's Rights and Roles	
		Contrast the role of women in traditional societies with those in developed nations.
		Explain the purpose of the Universal Declaration of Human Rights.
		Identify key women from history and current day who have impacted society.

Unit	Lesson	Lesson Objectives
	Impact of Science and Technology	
		Analyze the impact of mass communication and medical technology on the global world.
		Examine the increasing influence of renewable energy sources.
		Identify how the space race has changed since the Cold War.
	Demographics and Population	
		Analyze responses to an increased population.
		Identify causes of global population growth.
		Identify effects of global population growth.
	Economic Globalization	
		Analyze the effects of the rise of international economic organizations.
		Explain how globalization creates new opportunities for businesses and corporations.
		Identify the impact of globalization on the challenges faced by developed and developing nations.
	Writing Workshop: Who are the Most Influential People in History?	
		Create an outline in response to an informative essay prompt.
		Revise for the writing traits of ideas and organization.
		Write a draft of an informative essay about an important historical figure.
	Create Lesson: Creating a PowerPoint from Your Essay	
		Adapt an informative essay into a multimedia presentation.
		Create a presentation that makes strategic use of a variety of digital media.
		Present information clearly for the targeted audience, with supporting evidence

World History

Course Overview and Syllabus

Course Number: SS3316 IC

Grade level: 10

Prerequisite Courses: None

Credits: 1.0

Course Description

This year-long course examines the major events and turning points of world history from the Enlightenment to the present. Students investigate the foundational ideas that shaped the modern world in the Middle East, Africa, Europe, Asia, and the Americas, and then explore the economic, political, and social revolutions that have transformed human history. This rigorous study of modern history examines recurring themes, such as social history, democratic government, and the relationship between history and the arts, allowing students to draw connections between the past and the present, across cultures, and among multiple perspectives.

Course Objectives

Throughout the course, you will meet the following goals:

- Investigate civilizations in Africa, Asia, Europe, and the Americas and explore how they have changed over time.
- Analyze technological, political, social, and economic revolutions in world history.
- Explore the conflicts between nations to present day, and analyze the challenges facing the modern world.
- Describe cultural characteristics of societies over time, including the role of women, religion, and art and literature, and investigate the effects of technological innovation on economic and social change.
- Use research skills to access, interpret, and apply information from multiple sources.

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course. Students are expected to spend approximately five to seven hours per week online on:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, e-mail, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Quiz	20%
Test	30%
Exam	20%
Essay	10%
Assignment	10%
Additional	0%
Project	10%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: The Renaissance and the Reformation
Unit 2: Exploration and Conquest
Unit 3: Absolutism and the Rising Tide of Revolution
Unit 4: Nationalism and Industrialism
Unit 5: Imperialism and the Great War
Unit 6: The Interwar Years and World War II
Unit 7: Communism and the Cold War
Unit 8: Decolonization and Independence
Unit 9: Modern Issues in a Global Society