

Literacy T-Chart Frayer Model

CIP 46.9999 Construction Trades

Determine the meaning of symbols and vocabulary as they are used in a specific context.

Program Task:	PA Core Standard: CC.3.5.11-12.I
104: Describe and demonstrate the use of personal protective equipment.	Description: Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Program Associated Vocabulary:	Reading Associated Vocabulary:
Personal Protective Equipment (PPE) Safety guards Grounded wiring Face shield Safety goggles Splash guard Emergency stop button Anti-kickback device Hoisting device Hearing plugs Safety inspection	Essential characteristics Non-essential characteristics Examples Non-examples

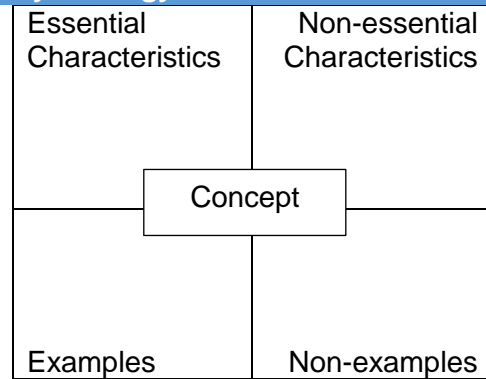
Program Strategy:	Literacy Strategy:
<p>Use the Frayer Model strategy to ensure that students develop a deep understanding of key concepts.</p> <p>After introducing the Frayer Model strategy and before starting the assignment, present the following prompt to students:</p> <p><i>Your construction trades teacher has assigned you to lead teams of new students on a walk-through of the construction training rooms. As you lead the walk-through, identify and discuss personal protective equipment throughout the training rooms.</i></p> <p><i>Before conducting the walk-through, research informational materials, including the OSHA website,</i></p>	<p>Frayer Model is used only for key vocabulary concepts. Students begin the graphic organizer before reading, but will re-visit it as they learn additional information. This is especially useful as students read multiple texts on the same concept and collect varying information.</p>

Program Strategy:

and create a Frayer Model organizer for each critical piece of Personal Protective Equipment (PPE) such as safety guards, face shields, safety goggles, and hearing plugs.

Use the Frayer Model to develop notes for the tour. You may also post the Frayer Model beside each of the devices for the new students' reference.

Literacy Strategy:



Whole Group

Show the model for the whole class and briefly discuss what goes into each section. Add a simple concept that all students should have some experience with (e.g., toy, dinner) and ask them to jot down notes for what they think each quadrant would contain.

After a minute or two for thinking, facilitate student responses for items to go into each quadrant. Guide their thinking by asking questions of some entries: Is dinner served at a time other than night in some sections of the country? Does a toy have to be reusable? This phase of the lesson should take no more than 10 minutes.

Guided Practice

Distribute a short reading (one or two paragraphs) about a topic from earlier in the year or one that is generally known, but not part of this lesson (e.g., democracy, photosynthesis). Direct students to read the passage individually and complete a Frayer Model. Ask students to collaborate with a shoulder partner to determine what should be in the Frayer Model. Then ask pairs to contribute to the whole class model. Challenge students with questions to make sure that they are adding only what has come from the reading.

Application

Identify key concepts for the current unit or project. After reading provided or student-identified texts, have students complete Frayer Model templates for each key concept.

Students should keep their on-going Frayer Models in their class notebooks or folders. Periodically, check student work to determine if they are adding to their understanding of the concept by reading or class experiences.

Program Strategy:	Literacy Strategy:
	<p>In debriefing, use the following questions:</p> <ul style="list-style-type: none"> • How did you (your group) complete the categories? Think about your thinking – Why did you categorize them the way you did? • Why is it important to know which characteristics are essential and which are not? • Why is it important to identify non-examples that could be confused with examples? <p>Listen for:</p> <ul style="list-style-type: none"> • Justification for categories. • Understanding why knowing the difference in the terms is important. • Understanding that some students had background about the concept that may be accurate or not. • Relying only on the texts for information. • This activity is teaching reasoning skills of classification and deduction.

Instructor’s Script – Frayer Model

Being able to correctly characterize key concepts is an important skill. Thinking deeply about what defines processes, equipment or products is essential to many advanced development processes.

The Frayer Model provides a visual map for students to distinguish between the various kinds of PPE and the context for each one. Discussing examples and non-examples is especially useful for students with different learning styles.

Common Mistakes Made by Students

In this strategy, students often consult (and copy) a dictionary or glossary definition for the meaning of words and then do not consider the possible complexities of key terms.

In the Frayer Model, students often look for only the most obvious answers. For instance, they may say that a non-example for a table is a car or a person. Students need to think more deeply and identify examples could be considered in the same class of objects or concepts. A non-example of a table might be a desk—something that is similar but typically has different purposes. If essential characteristics of a chair are that it has a back, seat and legs, then a milk stool would be a non-example because it does not have a back although it has a seat and legs.

Although symbols are straightforward, as students continue reading different texts and applying the information to new content, they may need deeper conversations to determine if their initial entries need adjusting.

CTE Instructor’s Extended Discussion

Congress created the Occupational Safety and Health Administration (OSHA) to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.

Because interpretations and enforcement policy may change over time, you should consult the agency for the most up-to-date information. Much of it is available at the [OSHA](#) website. Scripts and video examples of construction accidents are included.

Sample Questions

Career and Technical Concepts

Question	Answer
Personal Protective Devices (PPEs) are critical for construction trades workers. Which of the following would be an essential characteristic of a PPE? A. Easily available B. Replaced frequently C. Keeps workers safe D. Used for training	C. Keeps workers safe

PA Core Reading Concepts

Question	Answer
Read the paragraph below and then answer the question that follows: Architecture is both the process and the product of planning, designing, and constructing buildings and other physical structures. Architectural works, in the material form of buildings, are often perceived as cultural symbols and as works of art. Historical civilizations are often identified with their surviving architectural achievements. Which of the following is a non-essential characteristic of architecture? A. Process of planning, designing and constructing buildings B. Views buildings as cultural symbols C. Includes constructing buildings and physical structures D. Blueprints of important buildings	B. Views buildings as cultural symbols