



Creating a Literacy Rich Science Classroom



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Solutions



Anticipation Guide

Instructions:

1. Respond to the statements in the Anticipation Guide by circling A for “agree” or D for “disagree” in the “Before Reading” Column.
2. Read pages 57-58 and use the information learned in the text to complete the “After Reading” column.

Before Reading	Statement	After Reading
A or D	1. Literacy is the ability to read and write.	A or D
A or D	2. Reading is primarily the responsibility of elementary teachers in grades K-2.	A or D
A or D	3. If students can learn to read and decode words by third grade, they will most likely be successful in learning to read in the content areas in later grades.	A or D
A or D	4. In grades 4-12 25% of students struggle with decoding (reading words accurately)	A or D
A or D	5. Students who have limited literacy skills are unable to keep pace with the reading demands of the curriculum, and are at risk of dropping out.	A or D

INSERT Symbols Bookmark

✓ A check mark indicates a concept or fact already known.

? A question mark indicates a concept that is confusing.

! An exclamation mark indicates something new or surprising.

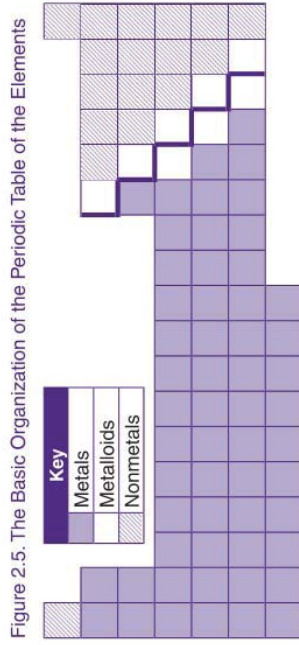
* An asterisk replaces the question marks that are cleared during discussion.

ABC Brainstorming

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Lesson 8: Metals, Nonmetals, and Metalloids

- Glue the colored Periodic Table into your science notebook.



Explain, Part 2

Read "The Periodic Table" and the questions throughout the passage. In your science notebook, respond to the questions as you read.

The Periodic Table

The Periodic Table is divided into three sections: metals, nonmetals, and metalloids. The zigzag line separates the metals from the nonmetals, with the exception of hydrogen. Metalloids are found along the zigzag line.

- What are the three classifications of elements?

Physical properties can be used to help identify if an element is a metal or nonmetal. Determining metalloids can be a bit more difficult. Metals, located to the left of the zigzag line, have a shiny luster and often look metallic, like aluminum foil or nails. Other properties of metals include high density, high melting points, and the ability to conduct heat and electricity. Most metals are also ductile and malleable. If a metal is ductile, it can be pulled into a wire like copper. Malleability is the ability of a metal to be pounded or flattened into thin sheets like aluminum foil.

- What are the properties of metals?

UNIT 2: Matter and Energy

Lesson 8: Metals, Nonmetals, and Metalloids

Nonmetals, located to the right side of the zigzag line, have almost the opposite properties of metals. These elements are dull, or lackluster. Nonmetals are insulators and do not conduct heat or electricity well. Elements that are nonmetals are brittle and break easily, so they cannot be made into wires or sheets. Other physical properties of nonmetals include low melting points and generally a lower density compared to metals.

- What are the properties of nonmetals?

The elements found along the zigzag line between the metals and nonmetals are called metalloids, with the exception of aluminum. The word *metalloid* means "metal-like." Metalloids have physical properties similar to both metals and nonmetals. Like metals, metalloids conduct heat and electricity but not effectively.

- What are the properties of metalloids?

Frayer Model

Use information from the reading passage "The Periodic Table" to complete the Frayer model.



Literacy Strategy Checklist

For each of the strategies listed, write a brief description of the strategy, identify the ELPS involved, and describe how you can implement the strategy in your classroom.

Strategy Name and Description	ELPS				How can I implement this strategy in my classroom?
	Listening	Speaking	Reading	Writing	
Anticipation Guide					
ABC Brainstorming					
Kinesthetic Reading/Underlining 1. Chunk Text – Print large enough so all can see. 2. Instruct one person in each group to read the text. Students who are not reading to underline a key phrase that best describes the topic and share with the group. 3. Signal students to move to the next section of text.					
Insert Symbols					
Roving Paragraph Provide students with a sentence stem to topic/question. <ul style="list-style-type: none"> ▪ In addition.... ▪ Also... ▪ Finally... 					