

Chapter 22 Earth's Interior

## Section 22.2 Minerals

(pages 664–669)

*This section describes minerals and rocks found on Earth and their different properties.*

### Reading Strategy (page 664)

**Outlining** Copy the outline on a separate sheet of paper and add more lines as needed. Before you read, make an outline of this section. Use the green headings as main topics and the blue headings as subtopics. As you read, add supporting details. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

Minerals
I. Minerals and Rocks
II. The Properties of Minerals
A. Crystal Structure
B. _____
C. _____
D. _____

### Minerals and Rocks (page 665)

1. A solid combination of minerals or mineral materials is a(n) \_\_\_\_\_.
2. Is the following sentence true or false? A mineral is a naturally occurring, inorganic solid with a crystal structure and a characteristic chemical composition. \_\_\_\_\_
3. A material is called \_\_\_\_\_ if it is not produced from a living thing.
4. Circle the letters of sentences that are true about minerals.
  - a. Within each mineral, chemical composition is nearly constant.
  - b. Minerals are organic.
  - c. There are about 4000 known minerals.
  - d. Minerals are the building blocks of rocks.

### The Properties of Minerals (pages 666–669)

5. Is the following sentence true or false? Minerals such as sulfur can sometimes be identified by color. \_\_\_\_\_
6. What could cause two samples of the same mineral to have different colors?  
 \_\_\_\_\_  
 \_\_\_\_\_
7. Is the following sentence true or false? The color of a mineral's streak is not always the same color as the mineral. \_\_\_\_\_

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8. How is a mineral's streak found? \_\_\_\_\_  
\_\_\_\_\_
9. The density of a mineral depends on its \_\_\_\_\_
10. Is the following sentence true or false? The hardness of a mineral is the way in which its surface reflects light. \_\_\_\_\_
11. To determine the hardness of a mineral, geologists use \_\_\_\_\_ tests.
12. Is the following sentence true or false? The fracture of a mineral is how it breaks. \_\_\_\_\_
13. A type of fracture in which a mineral splits evenly is called \_\_\_\_\_.
14. Complete the table about the properties by which minerals can be identified.

<b>Minerals and Properties</b>	
<b>Property</b>	<b>Description</b>
Crystal Structure	
	The color of a mineral's powder
Luster	
	A mineral's mass divided by its volume
Hardness	
	How a mineral breaks
Cleavage	

*Match each mineral to its property.*

- | <b>Mineral</b>         | <b>Property</b>                                       |
|------------------------|---|
| _____ 15. calcite      | a. Gives off visible light under an ultraviolet light |
| _____ 16. Iceland spar | b. Becomes electrically charged when heated           |
| _____ 17. magnetite    | c. Refracts light into two separate rays              |
| _____ 18. tourmaline   | d. Is attracted by a magnet                           |
| _____ 19. fluorite     | e. Easily dissolved by acids                          |