

# Directed Reading A

## Section: Identifying Minerals

### COLOR

1. What other factor besides air and water can change the color of a mineral?

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### LUSTER

2. The way a surface reflects light is called \_\_\_\_\_.
3. What are the three types of mineral luster?

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### STREAK

4. The color of a mineral in powdered form is called the mineral's \_\_\_\_\_.
5. Why is using a mineral's streak more reliable than using color to identify a mineral?

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### CLEAVAGE AND FRACTURE

6. Name two minerals with cleavage, a tendency to break along smooth, flat surfaces.
7. The tendency of some minerals to break unevenly along curved or irregular surfaces is called \_\_\_\_\_.

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**Directed Reading A *continued***

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**HARDNESS**

\_\_\_\_\_ **8.** A mineral's resistance to being scratched is called

- a. weight.
- b. streak.
- c. luster.
- d. hardness.

**9.** What do scientists use to determine the hardness of minerals?

\_\_\_\_\_

\_\_\_\_\_

**10.** What is the softest mineral on the Mohs scale?

\_\_\_\_\_

**DENSITY**

**11.** The ratio of the mass of a substance to the volume of the substance is its

\_\_\_\_\_.

**12.** What substance is the usual reference point for the density of other substances?

\_\_\_\_\_

**13.** The ratio of an object's density to the density of water is called the object's

\_\_\_\_\_.

**SPECIAL PROPERTIES**

**14.** The special property of calcite and fluorite that causes them to glow under ultraviolet light is called \_\_\_\_\_.

**15.** A Geiger counter can be used to detect \_\_\_\_\_ in a mineral.

**16.** A special property of pyrrhotite is that it is a natural \_\_\_\_\_ that attracts iron.

## Section Review

### Identifying Minerals

#### USING KEY TERMS

1. Use each of the following terms in a separate sentence: *luster*, *streak*, and *cleavage*.

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#### UNDERSTANDING KEY IDEAS

- \_\_\_\_\_ 2. Which of the following properties of minerals is expressed in numbers?
- a. fracture
  - b. cleavage
  - c. hardness
  - d. streak

3. How do you determine a mineral's streak?

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4. Briefly describe the special properties of minerals.

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#### MATH SKILLS

5. If a mineral has a specific gravity of 5.5, how much more matter is there in 1 cm<sup>3</sup> of this mineral than in 1 cm<sup>3</sup> of water? Show your work below.

**Section Review** *continued*

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**CRITICAL THINKING**

**6. Applying Concepts** What properties would you use to determine whether two mineral samples are different minerals?

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**7. Applying Concepts** If a mineral scratches calcite but is scratched by apatite, what is the mineral's hardness?

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**8. Analyzing Methods** What would be the easiest way to identify calcite?

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