

SECTION
1

Study Guide

Minerals

Chapter

3

Directions: Place the letter of the term beside the correct definition.

Definition

- _____ 1. naturally occurring, inorganic solid with a definite chemical composition and an orderly arrangement of atoms
- _____ 2. salt formed by the natural evaporation of seawater
- _____ 3. describes atoms arranged in a pattern over and over
- _____ 4. a solid in which the atoms are arranged in an orderly, repeating pattern
- _____ 5. melted rock that forms crystals
- _____ 6. the part of a solution that evaporates, leaving a mineral
- _____ 7. the process, in a dry climate, where the solution leaves the mineral
- _____ 8. number of common elements in Earth's crust
- _____ 9. group of rocks forming minerals that contain silicon and oxygen
- _____ 10. two most abundant elements in Earth's crust

Vocabulary

- a. crystal
- b. crystalline
- c. eight
- d. evaporation
- e. five
- f. halite
- g. magma
- h. mineral
- i. oxygen
- j. silicon
- k. silicate
- l. water

Directions: List four characteristics of a mineral.

11. _____
12. _____
13. _____
14. _____

Directions: Arrange the eight most common elements in Earth's crust from most common to least common. (Hint: refer to Figure 5 in your textbook for additional help.)

Most common

Least common

15.	16.	17.	18.	19.	20.	21.	22.
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SECTION
2

Study Guide

Mineral Identification

Chapter

3

Directions: *In the blank at the left, put a check mark (✓) next to each statement that agrees with the textbook.*

- _____ 1. The physical properties of a mineral can be seen or measured in some way.
- _____ 2. The physical properties of a mineral make it possible to identify the mineral.
- _____ 3. Any mineral can be identified by a careful check of one physical characteristic.
- _____ 4. Hardness is a measure of how easily a mineral can be located.
- _____ 5. Friedrich Mohs developed a scale which lists minerals according to their hardness.
- _____ 6. Quartz will scratch a piece of copper, so quartz is harder than copper.
- _____ 7. The luster of a mineral is described as metallic or nonmetallic.
- _____ 8. The luster of chrome would be described as nonmetallic.
- _____ 9. Color alone is not usually enough to identify a mineral.
- _____ 10. When some minerals are rubbed across unglazed porcelain, they leave a streak of powdered material.
- _____ 11. Graphite is a mineral that does not leave a clear streak.
- _____ 12. Topaz is a mineral that does not leave a clear streak.
- _____ 13. Most minerals cannot be broken.
- _____ 14. Mica shows clear cleavage.
- _____ 15. Quartz is a mineral with cleavage.

Directions: *Match the mineral names in Column I with the descriptions in Column II. Write the letter of the correct description in the blank at the left.*

Column I

- _____ 16. magnetite
- _____ 17. pyrite
- _____ 18. talc
- _____ 19. calcite
- _____ 20. gold

Column II

- a. light yellow color; metallic luster; greenish-black streak
- b. light color; fingernail will scratch it; leaves thick, powdery streak
- c. black color; black streak; dull metallic luster; is attracted to magnets
- d. yellow color; scratched by copper penny; often found in flakes
- e. glassy luster; hardness of 3

SECTION
3**Study Guide****Uses of Minerals****Chapter****3**

Directions: Answer the following questions on the lines provided.

1. Why are diamonds and rubies valuable? What are minerals like these called?

2. What characteristics make gemstones beautiful?

3. Quartz crystals can be used as gems. What other more practical uses can quartz crystals have?

4. What useful material may be obtained from bauxite? What useful material may be obtained from hematite? What are bauxite and hematite called, since they produce useful materials?

5. Where are vein mineral deposits found? How did they get there?

6. What is titanium and why is it useful?
