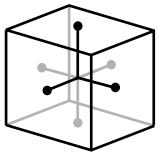
Name Class Date

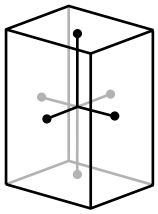
CHAPTER 4 STUDY GUIDE FOR CONTENT MASTERY

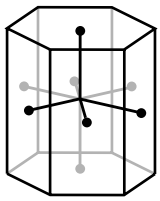
Minerals

SECTION 4.1 *What is a mineral?*

In your textbook, read about mineral characteristics.
Label each diagram as *tetragonal*, *hexagonal*, or *cubic*.







1. _____ **2.** _____ **3.** _____

Answer the following questions.

4. What is a mineral?

_____

_____

5. Why is salt classified as a mineral, but sugar is not?

_____

_____

6. Can minerals occur as liquids? Why or why not?

_____

7. Can the chemical composition of a single mineral vary? Explain your answer.

_____

_____

8. What is a crystal?

_____

_____

9. How does forming in a restricted space affect the structure of a crystal?

_____

_____

_____

SECTION 4.1 *What Is a mineral?, continued*

In your textbook, read about minerals that formed from magma and that formed from solution.
For each statement, write *true* or *false*.

_____ **10.** Minerals can form from the cooling of magma.

_____ **11.** Density differences can force magma upward into cooler layers of Earth's interior.

_____ **12.** If magma cools slowly, atoms do not have time to arrange themselves into large crystals.

_____ **13.** Small crystals form from rapidly cooling magma.

_____ **14.** When liquid evaporates from a solution, the remaining elements cannot form crystals.

_____ **15.** Minerals can form from elements dissolved in a solution.

_____ **16.** If a solution remains unsaturated, mineral crystals may precipitate.

In your textbook, read about mineral groups.
Complete the table by filling in the following terms: *silicates*, *carbonates*, *oxides*.

Mineral Group	Description
17. _____	Calcite, dolomite, and rhodochrosite are examples.
18. _____	Readily form silica tetrahedrons
19. _____	Composed of one or more metallic elements with the carbonate compound CO_3
20. _____	Composed of silicon, oxygen, and another element
21. _____	Compounds of oxygen and a metal
22. _____	Magnetite and hematite, both sources of iron, are examples.
23. _____	The most common minerals, feldspar and quartz, are examples.
24. _____	Primary minerals in limestone and marble