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.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystal Structure</td>
<td>The color of a mineral’s powder</td>
</tr>
<tr>
<td>Luster</td>
<td>A mineral’s mass divided by its volume</td>
</tr>
<tr>
<td>Hardness</td>
<td>How a mineral breaks</td>
</tr>
<tr>
<td>Cleavage</td>
<td></td>
</tr>
</tbody>
</table>

Match each mineral to its property.

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>calcite</td>
<td>a. Gives off visible light under an ultraviolet light</td>
</tr>
<tr>
<td>Iceland spar</td>
<td>b. Becomes electrically charged when heated</td>
</tr>
<tr>
<td>magnetite</td>
<td>c. Refracts light into two separate rays</td>
</tr>
<tr>
<td>tourmaline</td>
<td>d. Is attracted by a magnet</td>
</tr>
<tr>
<td>fluorite</td>
<td>e. Easily dissolved by acids</td>
</tr>
</tbody>
</table>