Chapter 25  The Solar System

Section 25.4 The Outer Solar System
(pages 810–815)
This section describes the planets in the outer solar system. It also describes the dwarf planet Pluto, comets and meteoroids, and the edge of the solar system.

Reading Strategy (page 810)
Summarizing  Copy the table on a separate sheet of paper. Fill in the table as you read to summarize the characteristics of the outer planets. 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.

<table>
<thead>
<tr>
<th>The Outer Planets</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jupiter</td>
<td>Largest; most mass; most moons; Great Red Spot</td>
</tr>
<tr>
<td>Saturn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Atmosphere contains methane; at least eight moons</td>
</tr>
</tbody>
</table>

Gas Giants (page 811)
1. Circle the letter of each sentence that is true about Jupiter, Saturn, Uranus, and Neptune compared to the terrestrial planets.
   a. Their years are shorter than the terrestrial planets.
   b. They are colder than the terrestrial planets.
   c. They are much larger than the terrestrial planets.

2. Circle the letter of each sentence that is true about the gas giants.
   a. Their cores are small and dense.
   b. They are made mostly of hydrogen.
   c. Their atmospheres are mostly hydrogen and helium.

Jupiter (pages 811–812)
3. Circle the letter of each sentence that is true about Jupiter.
   a. Jupiter has about 63 moons.
   b. Scientists hypothesize that Jupiter could support life.
   c. Jupiter is the most massive planet in the solar system.
Saturn (pages 812–813)

4. Saturn has the largest and most visible ________________ in the solar system. Circle the correct answer.

   moons    rings    storms

5. Is the following sentence true or false? Saturn has the largest atmosphere and the lowest average density of all the planets in the solar system. ________________

Uranus (page 813)

6. Circle the letter of each sentence that is true about Uranus.

   a. It has lots of methane in its atmosphere.
   b. Its axis is tilted more than 90º.
   c. It has no rings.

Neptune (page 814)

7. Is the following sentence true or false? Neptune gets its distinctive blue-green appearance from large amounts of methane in its atmosphere. ________________

Dwarf Planets (page 814)

8. Circle the letter of each sentence that is true about dwarf planets.

   a. They orbit the sun directly.
   b. They are too massive to attract neighboring debris.
   c. Pluto is a dwarf planet.

Comets and Meteoroids (page 815)

9. A(n) ________________ is made of ice and rock that partially vaporizes when it passes near the sun.

10. Chunks of rock, usually less than a few hundred meters in size, that travel through the solar system are called ________________.

The Edge of the Solar System (page 815)

11. What is the Kuiper belt? ________________

12. What objects are found in the Oort cloud? Circle the correct answer.

   asteroids    comets    planetoids