Chapter 25  The Solar System

Section 25.3 The Inner Solar System
(pages 803–809)
This section describes the terrestrial planets found in the inner solar system.

Reading Strategy (page 803)
Summarizing Copy the table on a separate sheet of paper. Write all the headings for the section in the table. Write a brief summary of the text for each heading. 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 Terrestrial Planets</th>
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<tbody>
<tr>
<td>I. The Terrestrial Planets</td>
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<tr>
<td>• Four planets closest to the sun</td>
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<tr>
<td>• Small, dense, with rocky surfaces</td>
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<tr>
<td>II.</td>
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<tr>
<td>a.</td>
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<tr>
<td>III. Venus</td>
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<tr>
<td>b. Thick atmosphere, very hot surface, many volcanoes</td>
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</tbody>
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The Terrestrial Planets (pages 803–804)
1. Identify the four terrestrial planets.
   a. ___________________  b. ___________________
   c. ___________________  d. ___________________

2. Circle the letter of each sentence that is true about the terrestrial planets.
   a. They all are relatively small and dense.
   b. They all have rocky surfaces.
   c. They all have thick atmospheres.
   d. They all have a crust, mantle, and iron core.

Mercury (pages 804–805)
3. Circle the letter of each sentence that is true about Mercury.
   a. It is the closest planet to the sun.
   b. It is the smallest of the terrestrial planets.
   c. It is geologically dead.
   d. It is the slowest-moving planet.

4. Is the following sentence true or false? Mercury has a large number of craters, suggesting that the surface has been largely unchanged for billions of years. ________________
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**Venus (page 805)**

5. Circle the letter of each sentence that is true about Venus.
   a. It rotates in the direction opposite to which it revolves.
   b. It is the brightest object in Earth’s night sky besides the moon.
   c. It rotates once every 24 hours.
   d. Its rotation rate is very fast.

6. Describe the effect that carbon dioxide in Venus’s atmosphere has on its temperature.

**Earth (pages 805–806)**

7. Circle the letter of each sentence that is true about Earth.
   a. Its atmosphere is very thin and composed mostly of carbon dioxide.
   b. It supports millions of different species of living things.
   c. It has a suitable atmosphere and temperature for liquid water to exist.
   d. Its core has cooled down to the point where it is geologically dead.

8. Why does Earth’s surface continue to change?

**Mars (pages 807–808)**

9. Circle the letter of each sentence that is true about Mars.
   a. The largest volcano in the solar system is on Mars.
   b. Iron-rich rocks on Mars’s surface give it a reddish color.
   c. It has a thick atmosphere that keeps the planet warm.
   d. The surface of Mars is colder than Earth’s surface.

10. Is the following sentence true or false? Mars shows evidence of once having liquid surface water.

**Asteroids (page 809)**

11. Small, rocky bodies in space are called _____________.

12. Circle the letter of each sentence that is true about asteroids.
   a. Most small asteroids have irregular forms.
   b. The asteroid belt formed when a giant planet was shattered by a collision with a meteoroid.
   c. Most asteroids are found in the asteroid belt between Earth and Mars.
   d. Most asteroids are less than 1 kilometer in diameter.

13. What do scientists hypothesize about how the asteroids formed?