Chapter Content Mastery
The Planets and Their Moons

Directions: Match each planet in Column II with a description from Column I. Write the letter of the planet in the space provided.

1. has the most extensive ring system in the solar system
   - A. Earth
   - B. Jupiter
   - C. Mars
   - D. Mercury
   - E. Neptune
   - F. Saturn
   - G. Uranus
   - H. Venus

2. closest to the Sun; has very little atmosphere
   - A. Earth
   - B. Jupiter
   - C. Mars
   - D. Mercury
   - E. Neptune
   - F. Saturn
   - G. Uranus
   - H. Venus

3. largest planet in the solar system; has a giant storm system in its atmosphere
   - A. Earth
   - B. Jupiter
   - C. Mars
   - D. Mercury
   - E. Neptune
   - F. Saturn
   - G. Uranus
   - H. Venus

4. has an atmosphere made up mostly of nitrogen and oxygen
   - A. Earth
   - B. Jupiter
   - C. Mars
   - D. Mercury
   - E. Neptune
   - F. Saturn
   - G. Uranus
   - H. Venus

5. has polar ice caps and areas with water ice near the surface, but shows no evidence of life
   - A. Earth
   - B. Jupiter
   - C. Mars
   - D. Mercury
   - E. Neptune
   - F. Saturn
   - G. Uranus
   - H. Venus

6. has a blue color due to methane in its atmosphere; eighth planet from the Sun
   - A. Earth
   - B. Jupiter
   - C. Mars
   - D. Mercury
   - E. Neptune
   - F. Saturn
   - G. Uranus
   - H. Venus

7. similar to the Earth in size, but covered with thick clouds
   - A. Earth
   - B. Jupiter
   - C. Mars
   - D. Mercury
   - E. Neptune
   - F. Saturn
   - G. Uranus
   - H. Venus

8. has an axis of rotation nearly parallel to its plane of orbit around the Sun
   - A. Earth
   - B. Jupiter
   - C. Mars
   - D. Mercury
   - E. Neptune
   - F. Saturn
   - G. Uranus
   - H. Venus

Directions: Circle the word in parentheses that correctly completes the sentence.

9. All of the inner planets have (craters/life) on their surfaces and solid (rocky/gaseous) bodies.

10. The most volcanically active body in our solar system is (Mars/Io).

11. A belt of (asteroids/comets) separates the inner and outer planets.

12. The atmospheres of the gaseous planets are made up mostly of (hydrogen/oxygen) and helium.

13. In 2005, the European Space Agency’s Huygens spacecraft entered the thick atmosphere of the moon (Europa/Titan).
1. The atmosphere of a comet, or ______________________, grows as the comet moves closer to the Sun.

2. ______________________ was the name of the spacecraft that sent a probe into the comet Temple-1.

3. A(n) ______________________ is a piece of an asteroid that enters Earth’s atmosphere and glows due to heat caused by friction with the atmosphere.

4. In 2005, a team of astronomers announced that they had discovered an object called ______________________, larger than Pluto and in an orbit three times as far from the Sun as Pluto.

5. A circular depression in a planet or moon’s crust caused by the impact of a meteorite or full asteroid is called a(n) ______________________.

6. A meteoroid that does not burn up in Earth’s atmosphere and hits Earth’s surface is called a(n) ______________________.

7. The region of icy bodies called ______________________ is located beyond the orbit of Neptune.

8. The small solid part of a comet is its ______________________.

9. A(n) ______________________ is a rocky object smaller than a planet that can be found between the orbits of Mars and Jupiter.

10. Believed to be rock dust and icy matter left over from the formation of the solar system, a(n) ______________________ is an object with a highly elliptical orbit that travels both close to and far away from the Sun.
Reinforcement  The Sun-Earth-Moon System

Directions: Circle the term that correctly completes each sentence.

1. When the Moon is full, (Earth/the Moon) is closer to the Sun.

2. The Moon has a number of different (phases/periods) that can be seen at different times depending on where it is in its revolution around Earth.

3. (The Moon/Earth) has a longer period of rotation.

4. A (solar/lunar) eclipse occurs when Earth’s shadow blocks our view of the Moon.

5. The Moon is about (4.5 billion/3.476 million) years old.

6. Earth is closest to the Sun in (January/July).

7. It takes (24 hours/365 days) for Earth to revolve around the Sun.

Directions: Answer each question or respond to each statement on the lines provided.

8. Explain what happens during a solar eclipse.

9. Explain why we experience night and day while living on Earth.

10. During what phase is the Moon the brightest in the night sky? Explain.

11. What is a satellite? Are all satellites moons?
Reinforcement  The Planets and Their Moons

**Directions:** Write the name or names of the planets that fit each description below. More than one planet might match a description, and some planets may be used more than once.

1. is one of the inner planets

2. has a very thick atmosphere that traps heat close to its surface

3. has at least 13 moons

4. is one of the gas giants, with large amounts of helium and hydrogen in its atmosphere

5. is one of the outer planets

6. has a shorter year than Earth

7. is known to have water ice in polar ice caps and near the surface of the planet

8. is the farthest planet from the Sun

9. does not have a moon

10. can be seen from Earth with the naked eye

11. it is usually the brightest object in the night sky because of its thick atmosphere