

**The Solar System** ▪ *Chapter 14 Pre-Assessment*

Write the letter of the correct answer on the line at the left.

- \_\_\_\_\_ 1. What is the sun and where is it within the solar system?
  - a. a planet; at the center of the system
  - b. a planet; at the outer edge of the system
  - c. a star; at the center of the system
  - d. a star; at the outer edge of the system
  
- \_\_\_\_\_ 2. Name the four planets, in order, that are closest to the sun.
  - a. Mercury, Venus, Earth, Mars
  - b. Mercury, Earth, Venus, Neptune
  - c. Jupiter, Saturn, Uranus, Neptune
  - d. Mercury, Earth, Mars, Jupiter
  
- \_\_\_\_\_ 3. What are some general characteristics of the Jupiter and Saturn?
  - a. small, rocky, many moons
  - b. large, surrounded by rings, many moons
  - c. large, rocky, no atmospheres
  - d. small, surrounded by rings, thick atmospheres
  
- \_\_\_\_\_ 4. What makes life possible on Earth?
  - a. rocky surface, one moon, water vapor
  - b. ice, suitable temperatures, thick atmosphere
  - c. rocky surface, water in three states, thin atmosphere
  - d. liquid water, suitable temperatures and an atmosphere

**The Solar System** ▪ *Section 14.1 Quiz*

If the statement is true, write true. If the statement is false, change the underlined word or words to make the statement true.

- \_\_\_\_\_ 1. The geocentric model of our solar system places Earth at the center of the system.
  
- \_\_\_\_\_ 2. Early observations of motions of Jupiter’s four moons and Venus’ phases supported a heliocentric model of the solar system.
  
- \_\_\_\_\_ 3. Calculations by Johannes Kepler proved that planets travel in perfect circles around the sun.
  
- \_\_\_\_\_ 4. Kepler’s third law states that planets closer to the sun travel slower than planets farther from the sun.
  
- \_\_\_\_\_ 5. Planets and their moons give off their own light.

**The Solar System** ▪ *Section 14.2 Quiz*

*Fill in the blank to complete each statement.*

1. When hydrogen combines in the sun's core, new elements form and \_\_\_\_\_ is released.
2. The sun is stable because the force of gravity balances pressure from \_\_\_\_\_.
3. Energy is moved toward the sun's surface by loops of gas rising and falling that form in the sun's \_\_\_\_\_.
4. The thin, outermost layer of the sun is called the \_\_\_\_\_.
5. \_\_\_\_\_ are large eruptions of solar gases that release large amounts of magnetic energy.

**The Solar System** ▪ *Section 14.3 Quiz*

*If the statement is true, write true. If the statement is false, change the underlined word or words to make the statement true.*

- \_\_\_\_\_ 1. The inner planets of our solar system are small and dense and have gaseous surfaces.
- \_\_\_\_\_ 2. Mercury is the smallest terrestrial planet and the planet that is closest to the sun.
- \_\_\_\_\_ 3. Venus has a thin atmosphere composed mostly of nitrogen.
- \_\_\_\_\_ 4. Scientists think that liquid water once flowed on Mars' surface.
- \_\_\_\_\_ 5. Mars has seasons because it is so close to the sun.



**The Solar System** ▪ Section 14.4 Quiz

Fill in the blank to complete each statement.

1. \_\_\_\_\_ is a dwarf planet with a very elliptical orbit that sometimes brings it closer to the sun than Neptune.
2. The planet \_\_\_\_\_ was discovered as the result of a mathematical prediction.
3. \_\_\_\_\_ is unique in that it rotates from top to bottom rather than side to side.
4. The Great Red Spot, more than 60 moons, and a thick atmosphere of hydrogen and helium are characteristics of \_\_\_\_\_.
5. \_\_\_\_\_ is the only planet that is less dense than water.

**The Solar System** ▪ Section 14.5 Quiz

If the statement is true, write true. If the statement is false, change the underlined word or words to make the statement true.

- \_\_\_\_\_ 1. Comets are loose collections of ice, dust, and small rocky particles whose orbits are usually very long, narrow ellipses.
- \_\_\_\_\_ 2. Most comets orbit either in the asteroid belt or the Oort cloud.
- \_\_\_\_\_ 3. Asteroids are thought to be the remains of a planet that broke apart.
- \_\_\_\_\_ 4. Most asteroids revolve around the sun between the orbits of Jupiter and Saturn.
- \_\_\_\_\_ 5. Meteorites are bright streaks in the night sky that form when a meteoroid enters Earth's atmosphere.

**The Solar System** ▪ *Section 14.6 Quiz*

*Fill in the blank to complete each statement.*

1. \_\_\_\_\_ is any life form other than those on Earth.
2. The “Goldilocks” conditions include the presence of liquid water, an atmosphere, and a \_\_\_\_\_ for living things to survive.
3. Evidence that liquid water may have once existed on Mars includes \_\_\_\_\_.
4. The *Spirit* and *Opportunity* rovers found evidence of the past presence of \_\_\_\_\_ on Mars.
5. Some scientists think that life might develop on Europa because the moon has what appears to be \_\_\_\_\_.