

Learning Objectives

Students will:

- 1) Understand what a planet is and how it is related to other objects in space.
- 2) Determine the order of the planets and understand how they are alike and how they are different.
- 3) Know that each planet rotates on an axis and revolves around the sun at its own speed.
- 4) Understand why Earth is the only planet known to support life.

Suggested Activities

- 1) Model of the Solar System. Ask students to work in pairs or small groups. Using classroom supplies (or have students brainstorm supplies they can bring from home and complete the project in two days) have groups construct a small scale model of the solar system. Students should make sure that their planets are comparatively sized, that they are the correct colors and composition (encourage creativity when constructing the gas planets), and that their orbits are as accurate as possible.
- 2) Life on Other Planets. After viewing the program, students should know that at this time, Earth is the only planet known to support life. Ask students to choose another planet, research it, and come up with a solution to make those planets livable as well (not just for people but for any type of life).

Test

True/False and Multiple Choice

- 1) All of the planets in our solar system orbit the sun.
___T ___F
- 2) You can only see planets with a telescope.
___T ___F
- 3) Astronomers divide the planets into two groups.
___T ___F
- 4) All of the outer planets have rings.
___T ___F
- 5) Earth is an outer planet
___T ___F
- 6) How are the inner planets different from the outer planets?
 - a) They are made of rock instead of gases
 - b) They are closer to the sun.
 - c) They are warmer.
 - d) All of the above
- 7) Venus is called earth's twin because
 - a) The two have the same type of atmosphere
 - b) Both planets support life
 - c) The rotate backwards
 - d) They are about the same size
- 8) Mars is unique because
 - a) It can support life
 - b) It has the largest volcano in the solar system
 - c) It has no atmosphere
 - d) It has rings
- 9) Which of the following is true about Jupiter?
 - a) It is the largest planet in our solar system
 - b) It has at least sixteen moons
 - c) The Great Red Spot is a storm on it's surface
 - d) All of the above.

- 10) How is Neptune different from the other planets?
 - a) It is tilted
 - b) For 20 years at a time, it is the farthest planet from the sun
 - c) It is hotter than the sun
 - d) None of the above

ANSWERS:

1.T, 2.F, 3.T, 4.F, 5.F, 6.D, 7.D, 8.B, 9.D, 10.B

Vocabulary

Atmosphere – a layer of gases that surrounds most planets.

Axis – the imaginary line around which a planet rotates.

Inner planets – Mercury, Venus, Earth, and Mars.

Moon – large, rocky, objects that orbit planets

Orbit – to move around another object, along a path.

Outer Planets – Jupiter, Saturn, Uranus, and Neptune.

Planet – a large body of rock or gas that orbits the sun.

Revolve – to move around an object in a circular motion.

Rotate – to spin.

Star – a mass of gas in space that gives off energy.

