

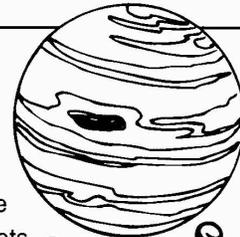
Science Shorts -6

The Outer Planets

Jupiter, Saturn, Uranus, Neptune, Pluto

The five planets farthest from the Sun are called the outer planets. The first four, **Jupiter, Saturn, Uranus, and Neptune** are called the gas giants. These planets are more like the Sun than Earth. They are mostly made up of liquids and gases, mainly hydrogen and helium. **Pluto** is the smallest planet in our Solar System and usually, farthest from the Sun.

Jupiter is the fifth planet from the Sun. It is the largest planet in our Solar System. Jupiter is twice as large as the other eight planets put together.



Uranus is the seventh planet from the Sun. Its light blue-green appearance is caused by the presence of methane gas clouds. Uranus lies on its side, with the north pole facing the Sun. It remains in daylight for half its year.

Uranus rotates in the opposite direction of the other four outer planets.

Saturn is surrounded by clouds of raging storms and powerful winds reaching speeds of over 1,000 mph. The clouds appear as bands of light gold, beige, and white, and are made up mostly of poisonous gases, like ammonia and methane. Some water vapor is also present. The temperature on Saturn may drop to -285°F . Because of the extreme cold, the gases have frozen and formed crystals, making them visible.

Pluto is the ninth planet from the Sun. It is also the smallest of all the planets and much different than the other outer planets. Pluto is an icy ball smaller than Earth's Moon. The surface of Pluto is probably made up of frozen nitrogen.

Neptune is the eighth planet from the Sun. It has four or more rings which are very narrow and difficult to see. The rings are made up of tiny dust particles revolving around the planet. From a distance, Neptune appears blue and seems to have a red rim around it. Winds on the surface of Neptune reach 600 mph.

Pluto has one moon, *Charon*, which is nearly as large as the planet itself. For this reason, Pluto is sometimes called a double planet system. Pluto may have evolved much like Earth and its Moon.

Although it is extremely cold on **Pluto**, the planet does have an atmosphere at times. When its orbit takes it closer to the Sun, ice on the surface evaporate and forms an atmosphere. As it moves further from the Sun, the atmosphere is lost again.

Outer Planet Questions

1. What are the names of the Outer Planets? _____

2. What is different about Pluto? _____
3. Which is the largest planet in the Solar System? _____
4. How fast of the winds of Saturn blowing? _____
5. What causes the blue-green color of Uranus? _____
6. How is Uranus different from the other outer planets? _____
7. How fast are the winds on Neptune blowing? _____
8. What is the name of Pluto's moon? _____
9. When does Pluto get an atmosphere? _____
10. In the space below draw and label the orbits of each of the 5 outer planets around the sun.

