

Sun

The sun is a huge glowing ball at the center of the solar system. The sun provides light and heat to the Earth. The sun is made entirely of gas. The nine planets revolve around the sun. It takes the sun one month to make a complete rotation.

Mercury

Mercury is the closest planet to the sun. It is the eighth largest planet. It is the least explored terrestrial planet. Mercury's temperatures vary from burning hot at its equator to icy cold at its poles. The planet Mercury was named for the Roman god Mercurius, who was known for his swift travel.

Venus

Venus is the second planet from the sun. It is the sixth largest planet. Venus is very dry. It has strong winds (350 kph) at the cloud tops and very slow winds at its surface. The planet Venus was named after the Roman goddess of beauty and growth in nature and the Greek goddess of love, Aphrodite.

Earth

Earth is the only planet that we know of with water in three forms: liquid, solid, and gas. The water on Earth has enabled its many life forms to grow. Water sustains all living things. Earth's oxygen and nitrogen atmosphere protects us from the harmful rays of the sun. The atmosphere and the oceans also spread heat from the sun around the planet creating milder climates that can support life.

Mars

Mars is the fourth planet from the sun. It is a rocky body half the size of the Earth. Its year is nearly two Earth years and it has ice at its poles. The surface temperature ranges from ~ 191 F to ~ 24 F. It has a volcano that is twice as tall as Mt. Everest. Mars is named from the Roman god of war for its red bloody color.

Jupiter

Jupiter is the largest planet in the solar system. It is the second brightest planet. Jupiter is the fifth planet from the sun. It travels around the sun in an elliptical orbit every 12 Earth-years. It takes Jupiter 9 hours and 44 minutes to rotate once on its axis. Jupiter is a giant ball of gas and liquid. Its surface is composed of dense red, brown, yellow, and white clouds. Jupiter was named after the king of the Roman gods, Jove.

Saturn

Saturn was named after an early god in Roman mythology. Saturn is the sixth planet of the solar system. It is a giant ball of gas with no solid surface. It is 95 times the size of the Earth. Saturn's most distinctive feature is its seven flat rings made of thousands of thinner rings. These rings are made of small rock and ice fragments. Saturn takes 30 Earth years to orbit the sun. Saturn has more than 20 moons. Saturn's atmosphere consists of hydrogen and helium with some ammonia and other gases.

Uranus

Uranus was the earliest god in the sky in Greek and Roman mythology. Uranus is the seventh planet of the solar system. This planet is made of dense cold gases surrounding a small core of rock. Uranus is 15 times the size of Earth. Uranus is tilted on its axis. Uranus takes 84 Earth years to orbit the sun. It has fifteen satellites and eleven rings made of block material. The relatively calm atmosphere consists largely of hydrogen and helium with traces of methane.

Comets

Comets are balls of frozen gas and rock sometimes called "dirty snowballs". Gravity from the matter in the Milky Way Galaxy or of passing stars sometimes pulls one of these chunks of ice out of its distant orbit and it falls towards the sun. As it gets closer to the sun, the ice turns to gas and releases the dust in it. The gas and dust stream away from the sun in separate tails. The head of a comet is an icy nucleus with a larger coma of gases around it.

Neptune

Neptune is named for the Roman god of spring, streams and seas. Scientists believe Neptune is made of hydrogen, helium, water, and silicates. Neptune does not have a solid surface like Earth. It is 4 times larger than Earth. Neptune is 30 times further away from the sun than Earth. Neptune has 8 satellites or moons. It orbits the sun once about every 165 Earth years. Usually Neptune is the eighth planet from the sun, but every 248 Earth years, Pluto moves inside Neptune's orbit and for 20 years Neptune is the furthest planet from the sun.

Pluto

Pluto is the farthest planet from the sun most of the time. Pluto is composed of a mixture of rock and ice. It has a low density like the giant gas planets. Unlike them, Pluto is very small. Because Pluto is so different from the other planets in our solar system, many scientists question whether Pluto should really be classified as a planet at all. Pluto can only be seen through large, powerful telescopes. It remains the most mysterious planet in our solar system.

Asteroids

Thousands of asteroids move in orbits around the sun, mostly between Mars and Jupiter. The name asteroid comes from a Greek word meaning *star-like*. They have diameters from a fraction of a kilometer to 800 kilometers. Asteroids are composed of rocks, metal, and ice. There are 3000 known asteroids. Only one asteroid, Vesta, is bright enough to be visible to the unaided eye.