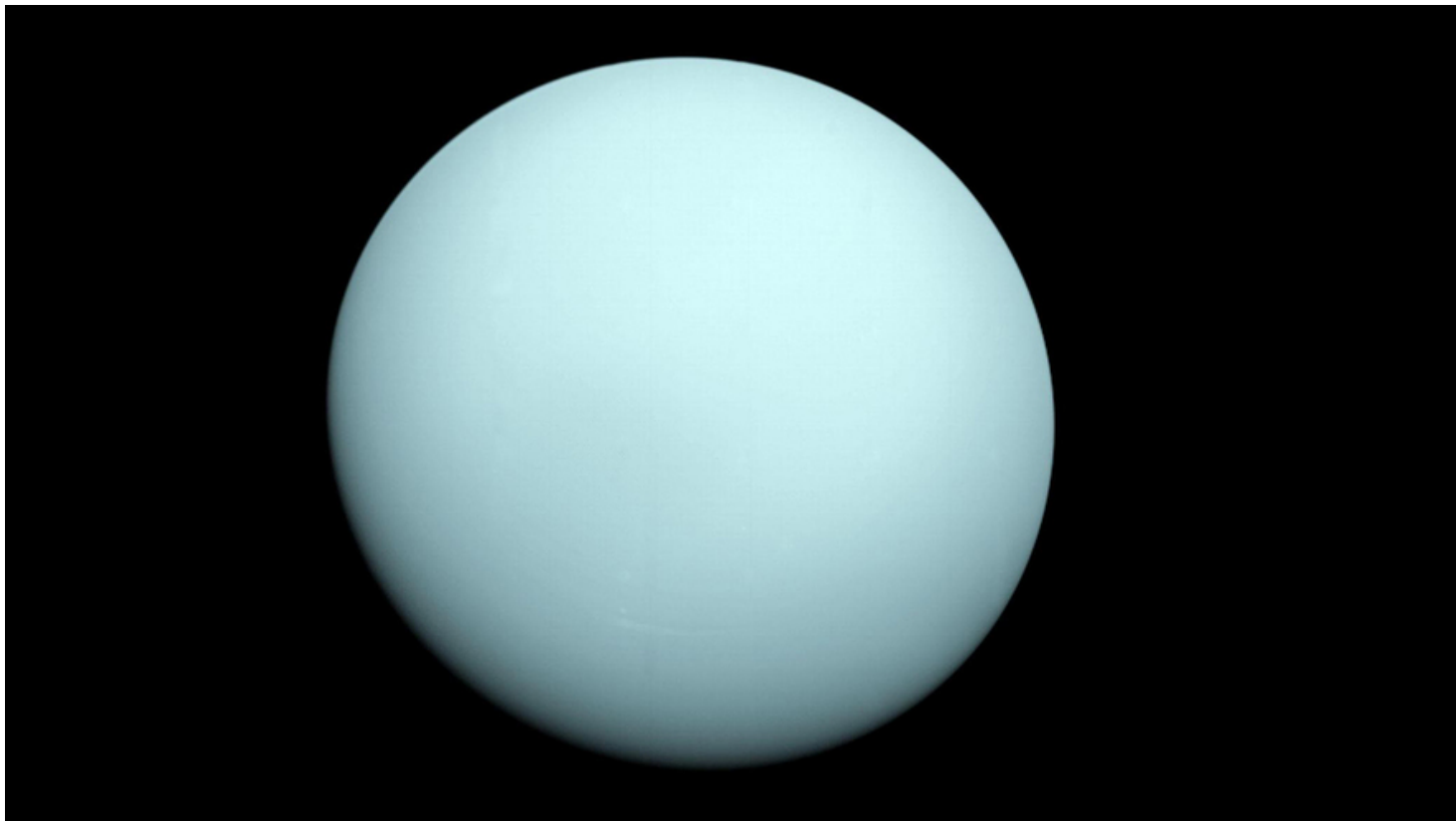


Exploring The Planets: Uranus

By Encyclopaedia Britannica, adapted by Newsela staff on 08.31.17

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This image of the planet Uranus was taken by the spacecraft Voyager 2 in 1986. Photo from: NASA/JPL-Caltech.

Uranus is the seventh planet from the sun. It was the first planet to be discovered after the telescope was invented. Uranus is about 1.8 billion miles from the sun.

Uranus was not known to ancient scientists. The planet is almost impossible to see from Earth without using a telescope. In 1781, scientist William Herschel was looking at the stars through an early telescope. He noticed an unusual object in the night sky. It turned out to be a planet, the first to be identified in modern times. The planet was later named Uranus, after the Greek god of the sky.

Physical Features

Uranus is the third largest of the eight planets in our solar system. The distance through its center is about 32,000 miles. Uranus is big enough to hold 60 Earths. The giant planet is closest in size to Neptune. That is Uranus' outer neighbor.

Uranus is one of the four gas giants. The other gas giants are Jupiter, Saturn and Neptune. These planets are mostly made up of gases. Uranus is mostly hydrogen and helium gas. It also contains a

small amount of methane gas. This gives the planet its blue-green color. Uranus has no solid surface. Underneath its huge layers of gases, it has a smaller area of thick, hot liquid.

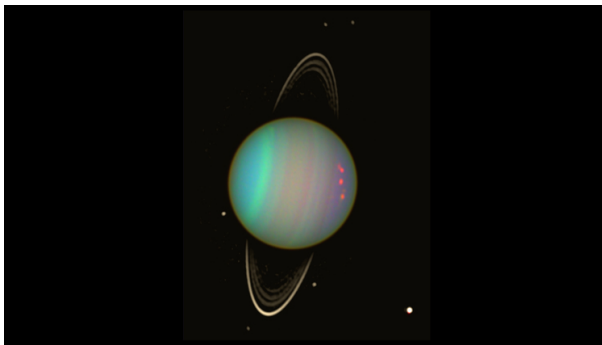
Uranus is surrounded by narrow rings. They are not like the bright, icy rings of the planet Saturn. Instead, Uranus' rings are made of some unusually dark material.

More than 25 moons orbit Uranus. Its five major moons are Oberon, Titania, Ariel, Umbriel and Miranda. They seem to be made of ice and rock. Some of them have deep valleys and large pits called craters.

Orbit And Spin

A year is the amount of time it takes a planet to make one full trip around the sun. An Earth year is 365 days. A year on Uranus is much longer. It lasts about 84 Earth years. That is because Uranus is farther from the sun and takes longer to travel around it.

Uranus spins in an unusual way. It is tilted so that it spins nearly on



its side. Also, Uranus is one of the few planets in the solar system to spin in a clockwise direction. Most of the planets spin in the opposite direction. A single day is equal to the time it takes a planet to make a full rotation. That is one complete spin, or turn, of the planet. Earth takes 24 hours to make one full rotation. Uranus takes about 17 hours.

Observations And Exploration

Uranus is a huge planet. However, it is so far away that people on Earth cannot see it without a telescope. Scientist William Herschel discovered Uranus using his telescope in 1781. Uranus' rings were discovered in 1977.

Even with telescopes, it is difficult to study Uranus. Much of what is known about it comes from information collected by the spacecraft Voyager 2. This spacecraft flew by Uranus in 1986. It is the only spacecraft that has visited the distant planet.

