

JUPITER

Jupiter, the fifth planet in our Solar System, is about 778 million kilometers (484 million miles) from the Sun. The average temperature on Jupiter is about -148°C (-234°F). Its atmosphere consists mainly of hydrogen and helium.

How Big Is Jupiter?

Known as the king of the planets, Jupiter is the largest planet in the Solar System. It is 142,984 kilometers (88,846 mi.) across. Jupiter is so large that 1,300 Earths could fit inside it.

How Long Are a Day and Year on Jupiter?

Jupiter takes about 1,331 Earth days to orbit the Sun. So on Jupiter, there are 1,331 Earth days in a year. Jupiter takes about 10 Earth hours to revolve once, which makes it the fastest-spinning planet in the Solar System. It also has the shortest day of all the planets.

What Is Jupiter Made Of?

Jupiter may be the largest planet in the Solar System, but it is not solid. It's a gas giant, made up mostly of gases and liquids. When we look at Jupiter, we see icy clouds moving at very fast speeds. The clouds form bands of colors, making the planet look as though it has stripes.

The Great Red Spot is a giant, spinning storm in Jupiter's atmosphere. It is more than twice the size of Earth and has been seen spinning ever since people started looking through telescopes about 400 years ago.

How Many Moons and Rings Does Jupiter Have?

With at least 67 moons (and possibly more yet to be discovered), Jupiter has more moons than any other planet. The largest four are Io, Europa, Ganymede, and Callisto. These four moons are called the *Galilean satellites* because they were first seen in 1610 by the astronomer Galileo Galilei. In 1979, NASA discovered that Jupiter has a set of rings, which are made up of cosmic dust and other small particles orbiting the planet. However, the rings are too faint to be seen from Earth.



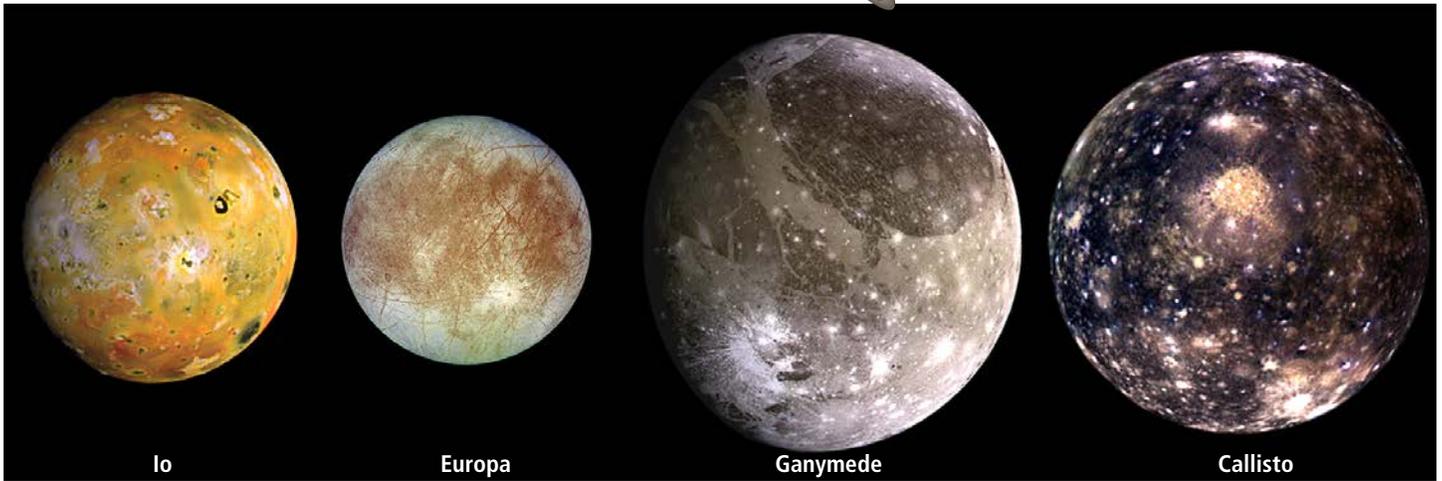
The Great Red Spot is actually shrinking. One study found that between 1996 and 2006, the storm shrank by 15 percent. Scientists estimate that the oval-shaped storm will become circular by 2040.

Do You Know?

- Jupiter was named after the king of the Roman gods.
- If Jupiter had been 75 times more massive when it formed, it would have become a star instead of a planet.
- Winds on Jupiter can blow as fast as 644 kilometers (400 mi.) per hour.
- If you weigh 45 kilograms (100 lbs.) on Earth, you would weigh 107 kilograms (236 lbs.) on Jupiter.

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These four moons of Jupiter are called the *Galilean satellites* because the Italian astronomer Galileo Galilei discovered them in 1610.

The Size of Earth Compared to Jupiter



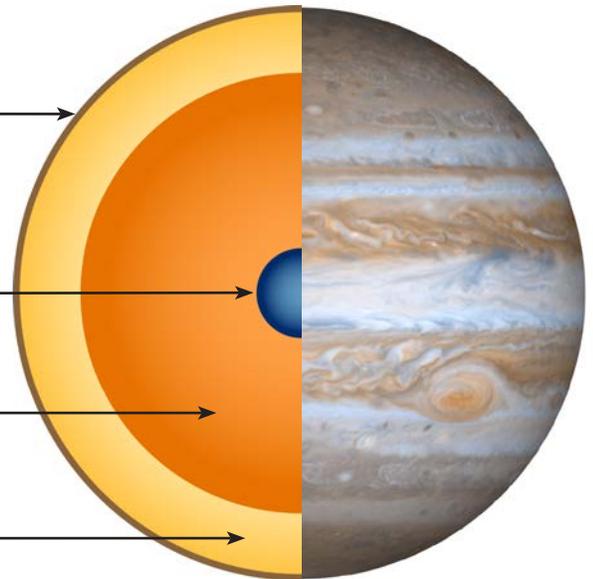
Jupiter's layers

gas atmosphere
(hydrogen, helium,
methane, ammonia,
and water)

rock and ice

liquid metallic
hydrogen

liquid hydrogen



Scientists think that Jupiter is made of several layers, including a gas layer, a liquid hydrogen layer, a liquid metal layer, and a central ball of rock and ice.



The *Galileo* spacecraft took this image of Jupiter's rings in 1996. The rings were first discovered in 1979 by the *Voyager* spacecraft. The fast-moving dust particles that make up the rings are

constantly falling down to the planet. Scientists think the rings are replenished by dust from the moons and other objects orbiting Jupiter.