

Solar System Exploration

Planets

Sitemap

SSE Home > Planets > Jupiter > Overview

Search

Home

News & Events

Planets

Our Solar System

Sun

Mercury

Venus

Earth

Earth's Moon

Mars

Asteroids

Meteoroids

Jupiter

Saturn

Uranus

Neptune

Pluto

Overview

Moons

Rings

Gallery

Facts & Figures

Kid's Eye View

Jupiter:

The most massive planet in our solar system, with four planet-sized moons and many smaller moons, Jupiter forms a kind of miniature solar system. Jupiter resembles a star in composition. In fact, if it had been about eighty times more massive, it would have become a star rather than a planet.

On January 7, 1610, using his primitive telescope, astronomer Galileo Galilei saw four small 'stars' near Jupiter. He had discovered Jupiter's four largest moons, now called [Io](#), [Europa](#), [Ganymede](#), and [Callisto](#). Collectively, these four moons are known today as the Galilean satellites.

Galileo would be astonished at what we have learned about Jupiter and its moons in the past 30 years. Io is the most volcanically active body in our solar system. Ganymede is the largest planetary moon and is the only moon in the solar system known to have its own magnetic field. A liquid ocean may lie beneath the frozen crust of Europa. Icy oceans may also lie deep beneath the crusts of Callisto and Ganymede. In 2003 alone, astronomers discovered [23 new moons](#) orbiting the giant planet, giving Jupiter a total moon count of 63 - the most in the solar system. The numerous small outer moons may be [asteroids](#) captured by the giant planet's gravity.



A Cassini spacecraft portrait of Jupiter in 2000.

[Read More About Jupiter](#)

Just the Facts

Metric | English | Scientific Notation

Distance from the Sun: 778,412,020 km

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- [Comets](#)
- [Kuiper Belt](#)
- [Beyond Our Solar System](#)
- [Featured Question](#)
- [Solar System 101](#)
- [Missions](#)
- [Science & Technology](#)
- [Multimedia](#)
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- [Kids](#)
- [Education](#)
- [History](#)

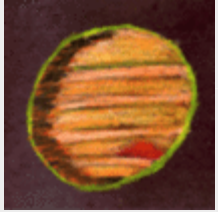
Equatorial Radius: 71,492 km

Volume: 1,425,500,000,000,000 km³

Mass: 1,898,700,000,000,000,000,000,000,000,000 kg

More Facts ▶

Jeremy (age 11) drew this picture of Jupiter. Looks pretty good, huh?



Check out the kid-friendly Jupiter page for more images and pictures! ▶

Resources

- [Missions to Jupiter](#)
- [Exploring the Planets - Jupiter](#)
- [Galileo and Cassini at Jupiter](#)
- [NASA Lithograph on Jupiter](#)
- [NASA Planetary Photojournal](#)
- [Compare Jupiter to other Planets/Moons](#)

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