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Overview

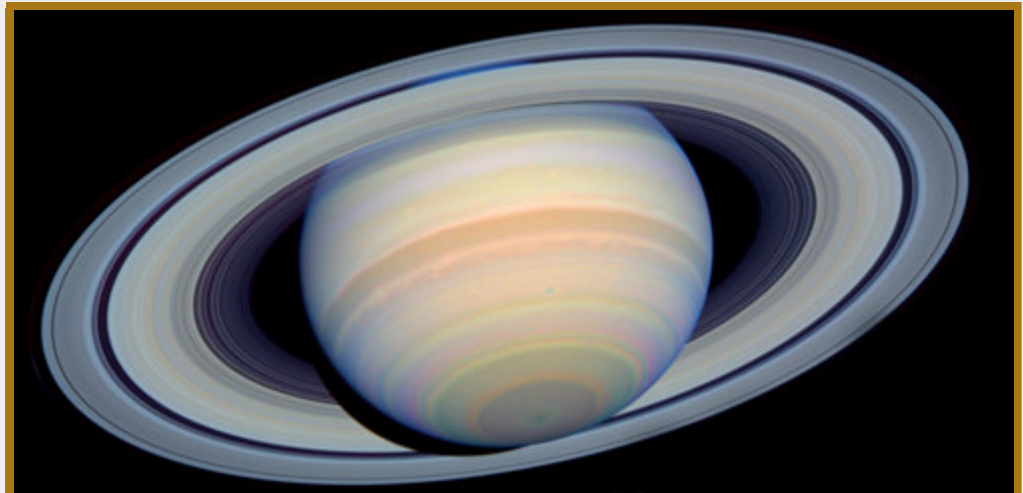
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Kid's Eye View



A Hubble Space Telescope image of Saturn in true color.

Saturn:

Saturn was the most distant of the five planets known to the ancients. In 1610, Italian astronomer Galileo Galilei was the first to gaze at Saturn through a telescope. To his surprise, he saw a pair of objects on either side of the planet. He sketched them as separate spheres and wrote that Saturn appeared to be triple-bodied. Continuing his observations over the next few years, Galileo drew the lateral bodies as arms or handles attached to Saturn. In 1659, Dutch astronomer Christiaan Huygens, using a more powerful telescope than Galileo's, proposed that Saturn was surrounded by a thin, flat ring. In 1675, Italian-born astronomer Jean-Dominique Cassini discovered a 'division' between what are now called the A and B rings. It is now known that the gravitational influence of Saturn's moon Mimas is responsible for the Cassini Division, which is 4,800 kilometers (3,000 miles) wide.

Like [Jupiter](#), Saturn is made mostly of hydrogen and helium. Its volume is 755 times greater than that of Earth. Winds in the upper atmosphere reach 500 meters (1,600 feet) per second in the equatorial region. (In contrast, the strongest hurricane-force winds on Earth top out at about 110 meters, or 360 feet, per second.) These super-fast winds, combined with heat rising from within the planet's interior, cause the yellow and gold bands visible in the atmosphere.

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Just the Facts

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Distance from the Sun: 1,426,725,400 km

Equatorial Radius: 60,268 km

Volume: 827,130,000,000,000 km³

Mass: 568,510,000,000,000,000,000,000,000 kg

More Facts ▶

Why Explore?

Saturn's rings help us learn how the solar system was before planets formed.

It's largest moon, Titan, shows us an atmosphere like Earth's before life developed.

It can help us understand how we began and where we're going.

The Saturn system is the most varied natural laboratory within our reach.



People Spotlight

The Ringmaster

Dr. Linda Spilker, deputy project scientist on the Cassini-Huygens mission, spent much of her career at NASA studying the beautiful, mysterious rings that make Saturn 'the jewel of the solar system.' ▶

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