

# All About Saturn

The text and images are from NASA Space Place.



## What is Saturn like?

Saturn isn't the only planet to have rings, but it definitely has the most beautiful ones. The rings we see are made of groups of tiny ringlets that surround Saturn. They're made of chunks of ice and rock. Like Jupiter, Saturn is mostly a ball of hydrogen and helium.

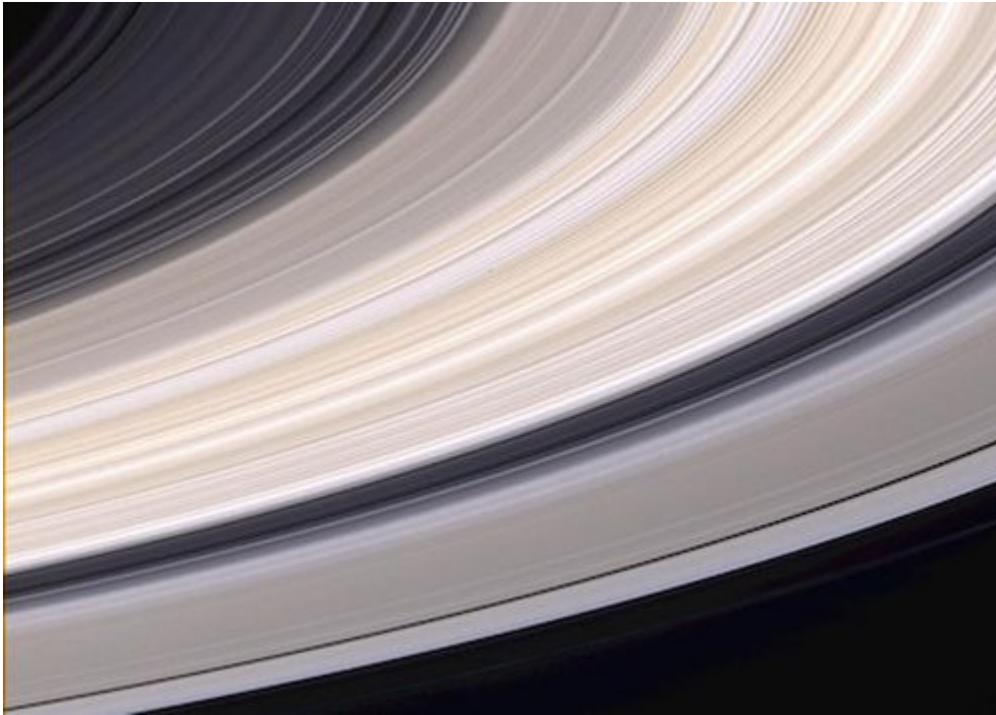
When Galileo Galilei saw Saturn through a telescope in the 1600s, he wasn't sure what he was seeing. At first he thought he was looking at three planets, or a planet with handles. Now we know those "handles" turned out to be the rings of Saturn.

## Saturn Facts

- Saturn is a gas giant like Jupiter.
- Saturn has a thick atmosphere.
- Saturn has a lovely set of seven main rings with spaces between them.
- Saturn has 53 moons! It also has nine unconfirmed moons we need to learn more about.
- One day on Saturn lasts 10.7 hours.

- One year on Saturn is the same as 29.5 Earth years.
- Saturn has been known since the ancient times because it can be seen without advanced telescopes.
- Five spacecraft have been by Saturn, including Pioneer 11, Cassini, and Voyager 1 and 2.

## What does Saturn look like?



*The Cassini spacecraft took this picture of Saturn's rings. You can see the grey and tan colors.*



*This is a picture of Saturn and its moons Tethys and Dione. Voyager 1 took this picture as it passed by.*



*NASA's Cassini spacecraft went behind Saturn and took this picture in 2013. You can see seven of its moons and its inner rings. In the background you can also see Earth.*



*A portrait looking down on Saturn and its rings. This picture was made from images taken by NASA's Cassini spacecraft in 2013. It was put together by amateur image processor and Cassini fan Gordan Ugarkovic.*

# portrait                              por      ·      trait

## Advanced Definition

### noun

1. a painting, drawing, photograph, or sculpture of a person, esp. a person's face.

*A portrait of Abraham Lincoln hangs on the wall.*

2. a verbal description of something, esp. a person.

*The author paints a grim portrait of life in the penal colony.*

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## These are some examples of how the word or forms of the word are used:

1. She is known for her striking self-**portraits**, or paintings she made of herself. Frida was born in 1907 and grew up in Mexico.
2. Get a serious feel for what you want to do, be it food, fashion, weddings, studio work, or **portraits**. Finding something you're passionate about is more important than technique.
3. In the mid-1750s, Gainsborough was hired to paint a **portrait** of Mr. and Mrs. Andrews. Instead of painting the couple in the center, he painted them on the left side of the canvas.
4. She had decided in high school to become a photographer, and at first, she ran her own studio, where she took people's **portraits**. During the 1920s, Lange traveled with her first husband, Maynard Dixon, around the southwestern United States.

# surround

sur · round

## Definition

### verb

1. to form a circle around something.

*The police surrounded the house.*

*Their house is surrounded by trees.*

## Advanced Definition

### transitive verb

1. to encompass by closing off all sides.

*The wall surrounds the town.*

2. to form in a circle around; encircle.

*Fans surrounded him after the concert.*

3. to enclose in order to prevent communication or escape.

*The police surrounded the building.*

### noun

1. anything that surrounds something.
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## These are some examples of how the word or forms of the word are used:

1. Your body is constantly under attack. Dirt and germs **surround** your body. Only one thing stands between dirt and the organs inside your body--skin.
2. In the Eastern Hemisphere there are the Indian and the Arctic Oceans. The Southern Ocean **surrounds** Antarctica and the South Pole. These five oceans make up one large "world ocean."
3. Once they were in town, the protesters sat down in a big circle and blocked traffic both ways. The local police and civil defense squad **surrounded** the protesters. The authorities had helmets and nightsticks.
4. It's funny how quickly the scenery changed. We'd gone from our little town and neighborhood -not a city, by any stretch, but at least populated-to the country, where a house seemed **surrounded** by a mile of corn on every side.

5. Vikings were not only fierce pirates; they were also the best shipbuilders of their time. Their masterful wooden ships were perfect for warfare. They were faster and stronger than those of other cultures. Water travel was the primary means of transportation for the Vikings. Most of Scandinavia is **surrounded** by water.
6. The architecture and design of Kyoto's older buildings is amazing. The Old Imperial Palace was built in 794. It was designed to be a graceful and elegant royal home. But there's another building which is even more breathtaking. It is called the Golden Pavilion. Built in 1397, this impressive structure sits in the middle of a gorgeous lake **surrounded** by well-maintained gardens.
7. You are **surrounded** by your peers all the time, and you learn a lot-both good and bad-by just being around them. You might admire a star athlete. Maybe you notice the popular kids at school and look up to them. Those aren't necessarily bad things. The popular group could be really nice; the athlete, a hard worker. Being inspired and influenced by different peer groups could help you in the long run.