



## **My Drift**

**Title: Saturn**

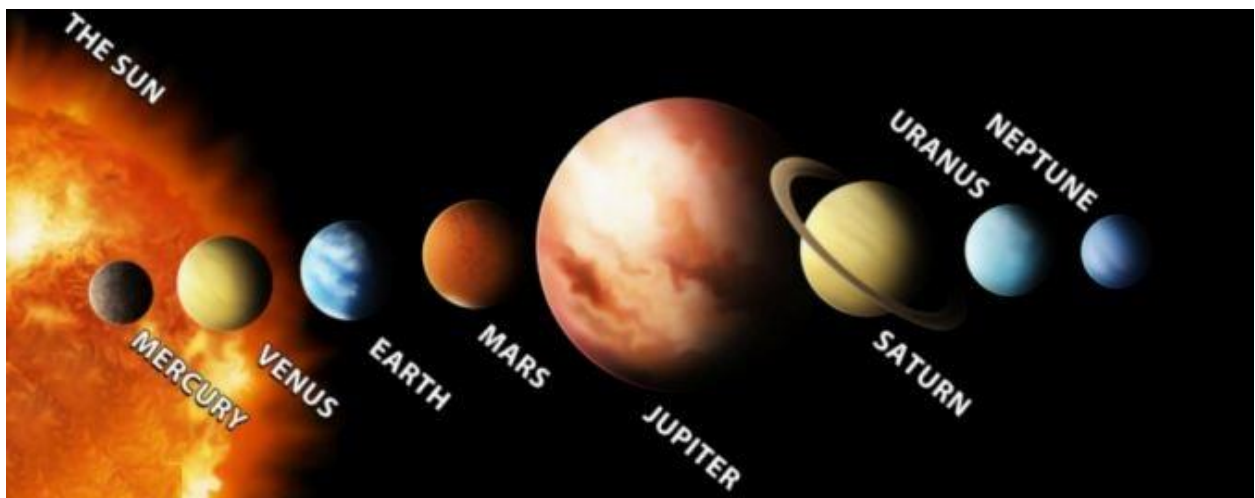
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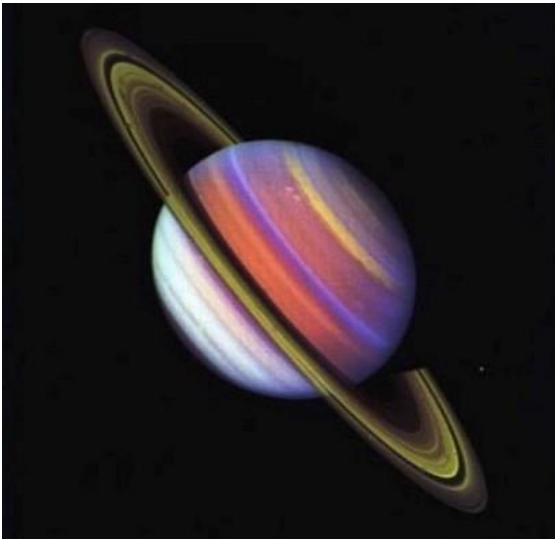


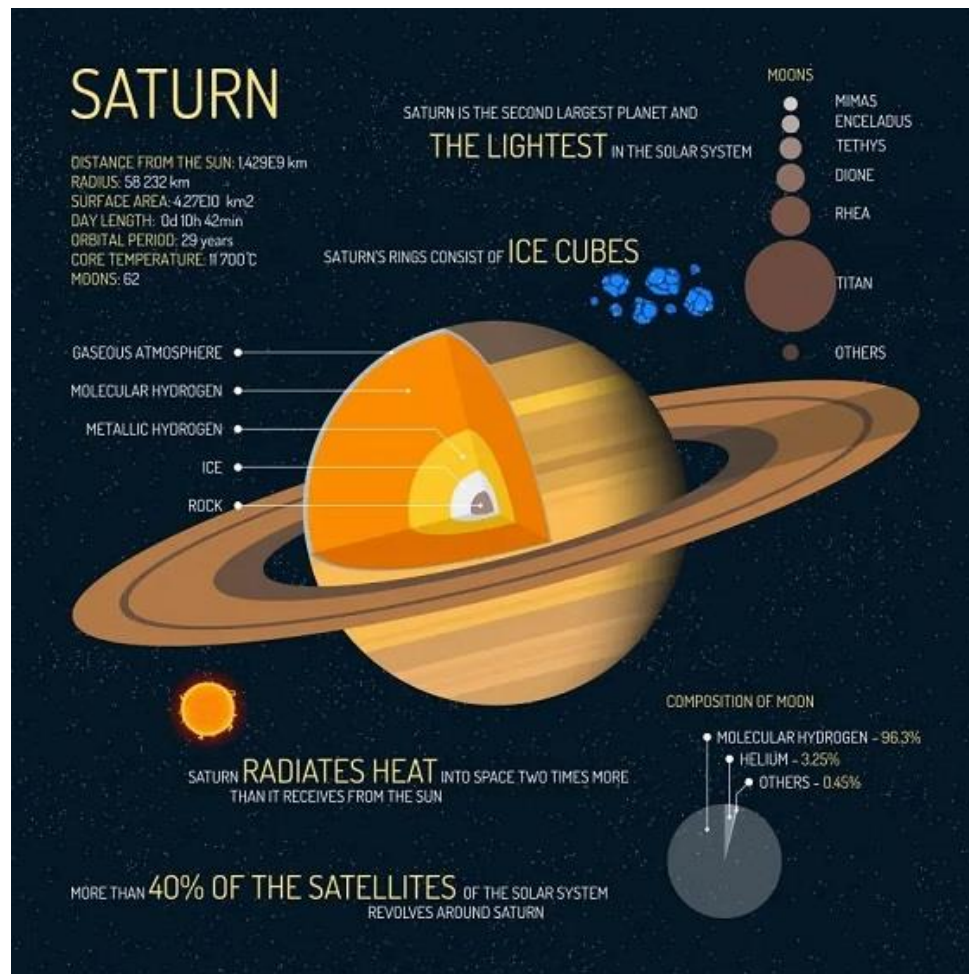
**What planet do you think is the most beautiful in our solar system?**



**They are all quite attractive but I'm going with Saturn as the most beautiful.**

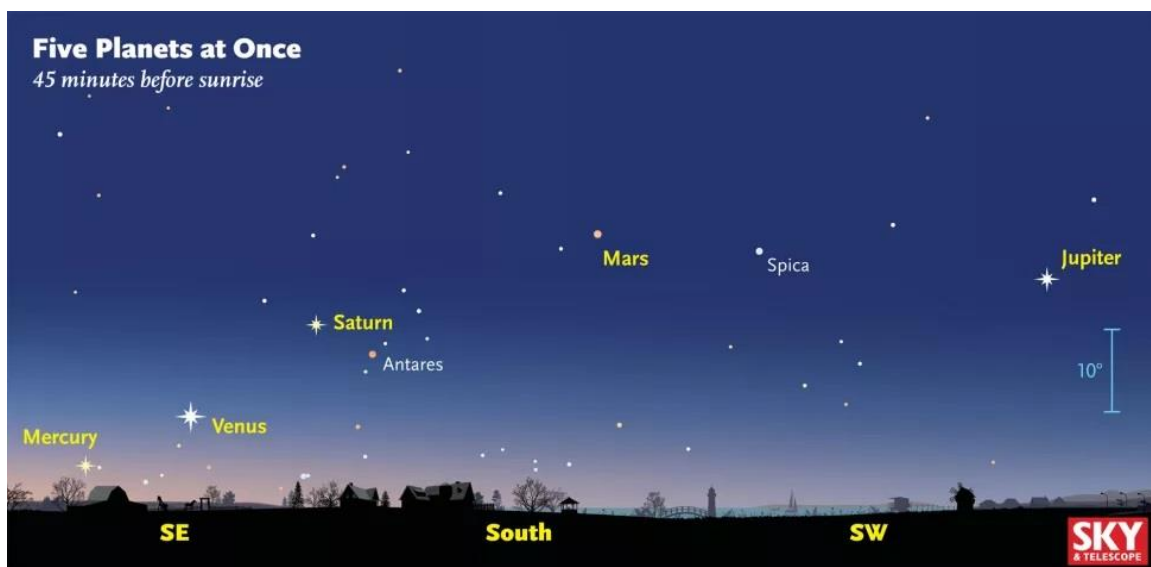
Here are a few more pictures of Saturn:



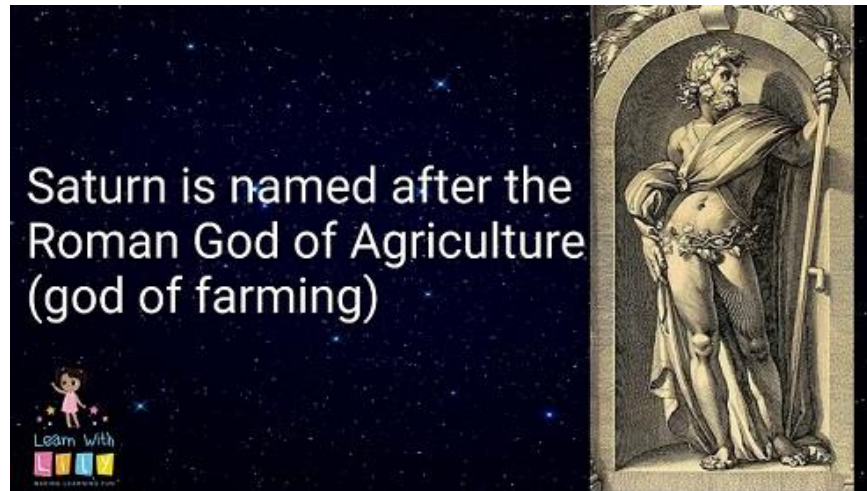


## How did Saturn get its name?

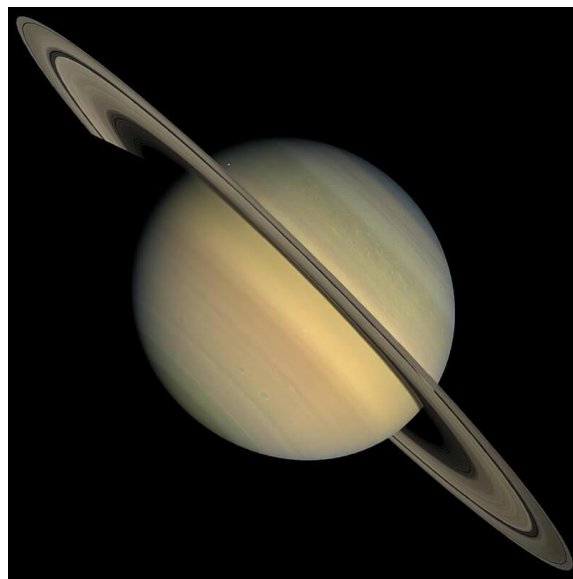
The Romans knew of seven bright objects in the sky: the Sun, the Moon, and five brightest planets (Venus, Jupiter, Saturn, Mercury, and Mars).



**They named these planets after their most important Gods. Saturn was named after the Roman God of Agriculture. According to myth, Saturn introduced agriculture to his people by teaching them how to farm the land. In Roman mythology, Saturn was the father of Jupiter. Saturday is also named after the Roman God Saturn (Saturn's Day).**



**What color is Saturn?**



**Planets have the colors that they have because of what they are made of and how their surfaces or atmospheres reflect and absorb sunlight. Saturn is also a giant gas planet with an outer atmosphere that is mostly hydrogen and helium. Its atmosphere has traces of ammonia, phosphine, water vapor, and hydrocarbons giving it a yellowish-brown color. However, as some of the above pictures show, Saturn can be quite colorful depending on where the picture is taken and the atmosphere conditions.**



### **How big is Saturn?**

It is the second-largest planet in the Solar System after Jupiter. It is easy to forget just how large Saturn is, at around 10 times the diameter of Earth with a diameter of about 72,400 miles. The surface area of Saturn is 83 times greater than Earth. Saturn also has the largest planetary rings in the Solar System.

### **What is the temperature on Saturn?**

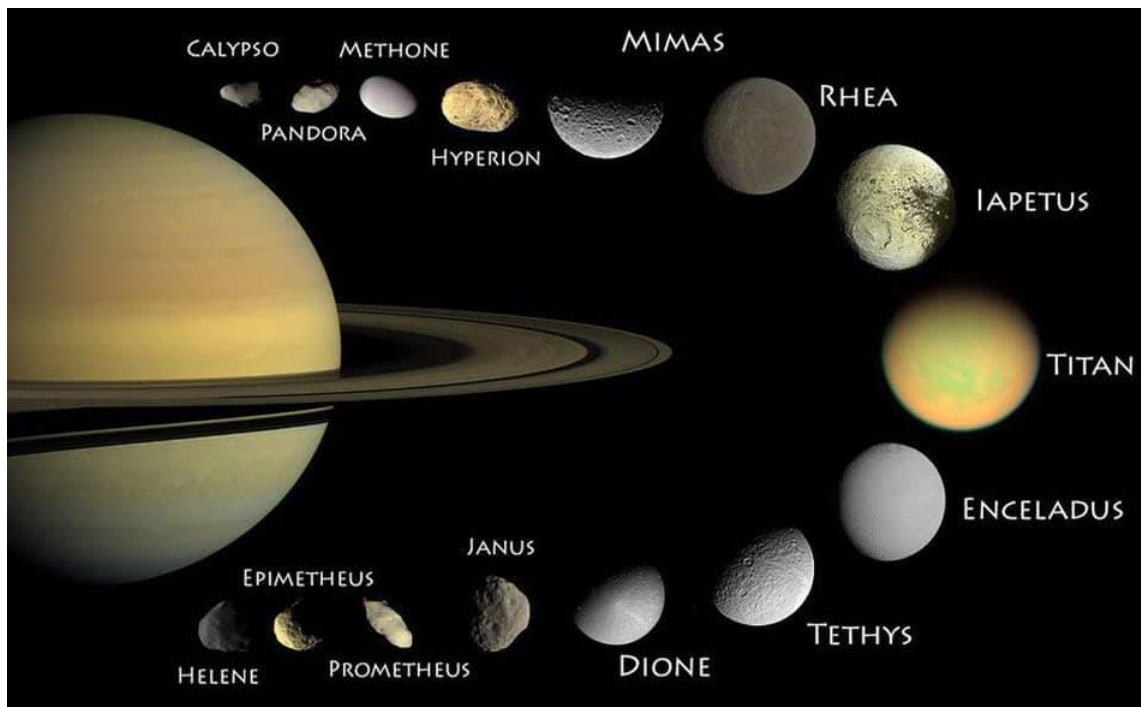
The temperature on Saturn's upper atmosphere is on average at around -175 degrees Celsius / -285 degrees Fahrenheit. This is quite cold for a gas giant at least. However, below its clouds, it gets considerably hotter.

### **How long does it take Saturn to go around the Sun?**

Saturn revolves or orbits around the Sun once every 29.4 Earth years, or once every 10,756 Earth days. Saturn travels at an average speed of 21,637 miles per hour in its orbit around the Sun. The earth covers this route at a speed of 67,000 miles per hour.

### **How many moons does Saturn have?**

Saturn is the King of the Moons, having a total of 82 confirmed moons. There are probably more out there. The largest moon of Saturn is named Titan, and it is the second-largest moon in the Solar System after Jupiter's moon Ganymede.



### **What is Saturn made of?**

Saturn is not solid like Earth but is instead a giant gas planet. It is made up of 94% hydrogen, 6% helium and small amounts of methane and ammonia. Hydrogen and helium are what most stars are made of. It is thought that there is a molten, rocky core about the size of Earth deep within Saturn.

### **If you stood on Saturn, would you sink?**

The outer part of Saturn is made of gas and the very top layers have about the same pressure as the air does on Earth. So, if you tried to walk on this part of Saturn, you would sink through its atmosphere. Saturn's atmosphere is very thick, and its pressure increases the deeper you go. After a while, you would stop sinking and unfortunately be crushed by the high pressure deeper in Saturn's atmosphere.

### **How many spacecrafts have been to Saturn?**

As of this date in 2022, four spacecraft have flown by, or around, Saturn.

- ❖ In 1979, Pioneer 11 became the first spacecraft to fly by and study Saturn up close.
- ❖ Voyager 1 flew by in 1980 and Voyager 2 in 1981. These spacecrafts studied many of the moons of Saturn as well.
- ❖ In July 2004, the Cassini-Huygens spacecraft reached Saturn. Launched in 1997, the international mission Cassini-Huygens took almost seven years to reach the planet famed for those amazing rings. It continued to send back observations of the planet, its moons, and ring system, until it was sent in a controlled plunge into Saturn's atmosphere on Sept. 15, 2017, returning science data to the very end.



**Cassini-Huygens Spacecraft**

### **Can I look up in the sky and see Saturn?**

Saturn is the most distant planet that can be seen with the naked eye. It is the third brightest planet in the solar system and is easily studied through binoculars or a telescope. Saturn was known to the ancients, including the Babylonians and Far Eastern observers.

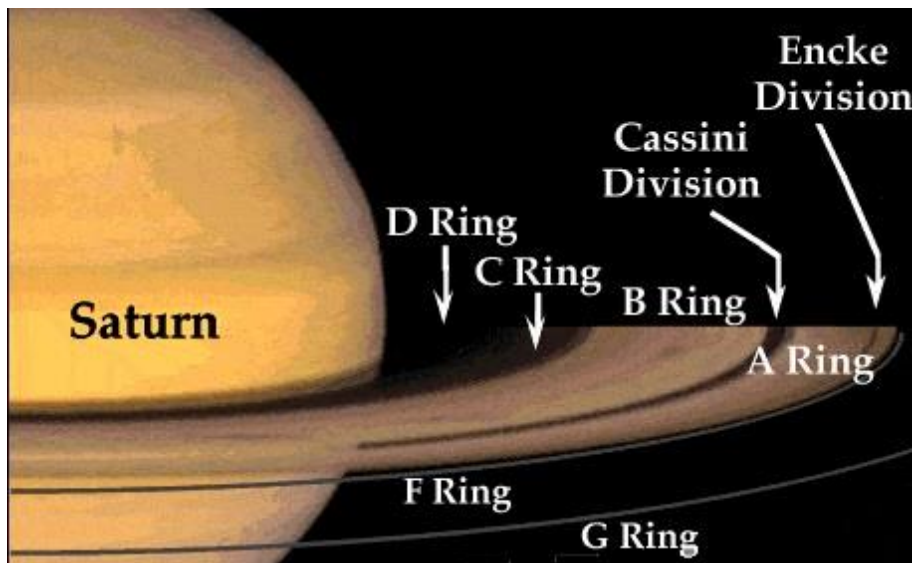
### **How long is a day on Saturn?**

Its polar diameter is 90% of its equatorial diameter, this is due to its low density and fast rotation. Saturn turns on its axis once every 10 hours and 34 minutes giving it the second-shortest day (after Jupiter) of any of the solar system's planets.

### **Saturn's Rings**

While all the gas giants in our solar system have rings none of them are as extensive or distinctive as Saturn's. The rings were discovered in 1610 by Galileo Galilei who observed them with a telescope. The first 'up close' view of the rings were by Pioneer 11 spacecraft which flew by Saturn on 1 Sep 1971.

Saturn's rings are made up of billions of ice and rock particles. They range in size from tiny dust grains to objects as large as mountain-sized rocks. These objects are believed to have come from asteroids, comets, or even moons that broke apart before they reached the planet.



Saturn's rings are divided into 7 groups, named alphabetically in the order of their discovery (Outwards from Saturn; D, C, B, A, F, G and E). The F ring is kept in place by two of Saturn's moons, Prometheus and Pandora, these are referred to as "shepherd moons". Other satellites are responsible for creating divisions in the rings as well as shepherding them.

**Saturn's rings are disappearing. This won't happen in our lifetime – scientists estimate the rings could vanish in fewer than 100 million years. The particles that make up the icy rings are losing a battle with the sun's radiation and the gravity of Saturn.**

**Saturn has oval-shaped storms similar to Jupiter's**

**The region around its north pole has a hexagonal-shaped pattern of clouds. Scientists think this may be a wave pattern in the upper clouds. The planet also has a vortex over its south pole that resembles a hurricane-like storm.**



**Beautiful Saturn**

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