SATURN
By: Nate, Ryan, Jeffrey, Anders
MYTHOLOGY AND ORIGIN

× Saturn is the Roman god of time.
× Same as Cronus (father of Zues) in Greek Mythology.
× Is referred to as Saturn in every relevant culture.
**POSITION IN SOLAR SYSTEM**

- 6th planet from the sun
- 2nd largest in solar system
- 1433.4 million km from sun
- A little over 9 earths can fit into the diameter of Saturn.
**HOW SATURN WAS FORMED**

- formed the same way as the other gas planets

- Theory: comets, moons, and asteroids collided with each other multiple times due to Saturn’s intense gravitational pull
NATURAL SATELLITES

- Saturn has 62 known moons
- The largest moon orbiting Saturn is Titan
- Saturn also has planetary rings orbiting the planet
- The rings extend from 6,630 km to 120,700 km outward from Saturn’s equator
- The rings are composed of 93% water ice and 7% amorphous carbon
- Other well known moons: Hyperion, Prometheus, Calypso, Pandora
NATURAL SATELLITES

Titan

Planetary Rings
**MAN-MADE SATELLITES**

- The Huygens probe landed on Saturn's largest moon, Titan, in 2005.
- The Cassini orbiter was the first and only artificial satellite over Saturn.
- The Cassini orbiter was designed for long-term observation from orbit.
- The NASA Hubble Space Telescope has recorded images of Saturn.
MAN-MADE SATELLITES

Cassini Orbiter

Huygens Probe
REVOLUTION AND ROTATION

- Average orbital speed is 9.69 kilometers per second, it takes Saturn 10,759 (29.5 years) Earth days to finish one revolution around the sun.
- Saturn's rotation is the equivalent of 10.2 Earth hours.
- Mostly made of hydrogen, which it captured in the early stages of its formation. Most of the remaining composition is helium. Other elements, such as methane and ammonia can be found. Nitrogen and oxygen also mix within the atmosphere.
Saturn is a gas giant that has a layered atmosphere without a defined hard surface. Saturn is the least dense of all the planets because of its liquid characteristics. Most of Saturn is made up of hydrogen and helium. Also, traces of ammonia and methane can be found.
In the past spacecraft have taken greatly different amounts of time to make it to Saturn. Pioneer 11 took six and a half years to arrive. Voyager 1 took three years and two months, Voyager 2 took four years, and the Cassini spacecraft took six years and nine months to arrive.
**SUN'S EFFECT ON PLANET**

Because Saturn is so far away from the sun, the effect on the planet is very minimal. It takes Saturn 29.45 years to orbit the sun once.
OTHER INTERESTING FACTS

The surface area of Saturn is 83 times the area of Earth, and the volume is 764 times the volume of Earth. In other words, you could fit 764 planets the size of Earth inside Saturn.

According to NASA, Saturn's largest moon, Titan, is one of the most Earth-like worlds we have found in our solar system. About half the size of Earth and almost as large as Mars.
SOURCES

× Windows2universe.org
× Universetoday.com
× Planetfacts.org
× Sciencing.com
× Nasa.gov
× Coolcosmos.ipac.caltech.edu