

Discovering Saturn - Educator's Guide (Ages 12-15)



At the end of these Night Sky activities students will understand:

- Saturn is a planet in the Solar System visible from Earth
- Saturn has a large ring system.
- The rings are primarily composed of ice
- Saturn is a gas giant planet

Astronomy background information

Saturn is the sixth planet from the Sun and the furthest planet visible in the sky without a telescope. It is a gas giant planet with a diameter about 9.5 times that of Earth. Theories suggest that Saturn has a rocky core larger than our whole planet. This core is surrounded by a layer of metallic hydrogen. Above this is a layer of hydrogen in a fluid state and a largely hydrogen atmosphere. Clouds near the top of the atmosphere give Saturn its banded appearance. There is no solid surface on Saturn.

The planet's most famous feature is its spectacular ring system which was first clearly seen by astronomer Christiaan Huygens in 1655. Huygens correctly proposed that the rings were composed of many small particles orbiting the planet. Saturn has many small moons and their gravitational pulls on these particles are responsible for the rings' variations in brightness.

There are two main theories about the origin of the rings. The ice may be material left over from Saturn's formation, but the most popular theory suggests that the rings are debris from an icy moon that was smashed by an asteroid impact.

Night Sky App Essential Settings

Go to Night Sky Settings  and make sure the following Preferences are set.

Turn On these Effects:

Environment Based Horizon

Turn Off these Effects:

Show Satellites
Real Sky Representation
Show Glass Mythology
Show Constellation Lines

Accessible Learning:

- Text size can be increased in the Preferences section
- Star numbers can be reduced by sliding two fingers down the screen

