

Name _____

Saturn: The Ringed Wonder of Our Solar System

Short Answer Key

1. Saturn's rings consist of countless particles, primarily composed of ice particles with traces of rock and dust. They are not solid but composed of separate particles orbiting Saturn.
2. The hexagonal storm system is a prominent feature near Saturn's north pole, characterized by its hexagonal shape. It is caused by fast-moving winds in the upper atmosphere, although the exact cause of this hexagonal shape is still under investigation.
3. One of Saturn's largest moons is Titan. It is larger than the planet Mercury and is known for its thick atmosphere, which is unique among the moons in our solar system. Titan's atmosphere is mainly composed of nitrogen, and it has a hazy, orange appearance. The moon also has lakes and rivers of liquid methane and ethane on its surface.
4. Studying Saturn's rings and moons provides valuable insights into the processes of planetary formation and evolution. It helps us understand how celestial bodies interact in space and the diversity of environments that exist beyond Earth.
5. The primary goal of NASA's Cassini spacecraft was to study Saturn, its rings, and its moons up close. It aimed to provide detailed data and images of these celestial objects to enhance our understanding of Saturn's complex system and its place in the solar system.

