

Name: _____

The Outer Solar System

By Leslie Cargile

The outer solar system is the name of the planets beyond the asteroid belt. The planets in the outer solar system are called gas giants because they are made up of gas and ice. Other than the Sun, the gas giants contain ninety-nine percent of the mass in our whole solar system!

The first stop on our tour of the outer solar system is the fifth planet, Jupiter. Next to the Sun, Jupiter is the second most massive object in our solar

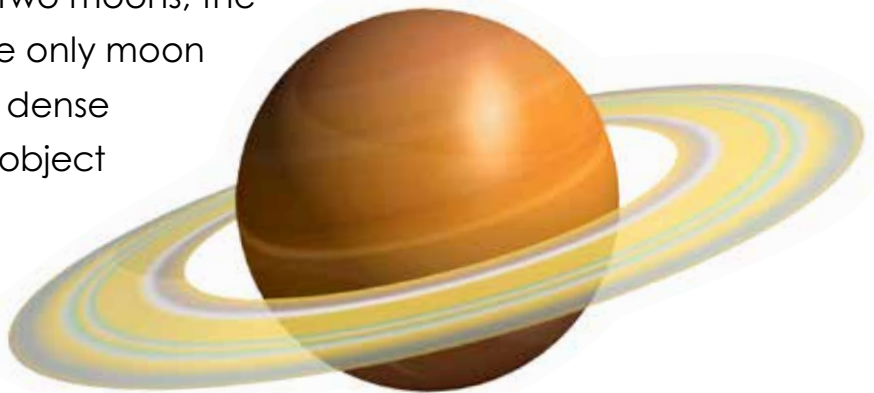


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moons and a faint ring around it too.

Next in our space neighborhood comes Saturn. It is the sixth planet from the Sun. Saturn is most well-known for the series of beautiful rings that circle it. They are made up of tiny bits of frozen dirt and ice. Like Jupiter, Saturn is made of mostly hydrogen and helium. It is smaller though, at only ninety-five times the size of Earth. Saturn has sixty two moons, the largest being Titan. Titan is the only moon in our solar system that has a dense atmosphere. It's also the only object in our solar system besides Earth known to have large amounts of liquid found on the surface.



Uranus is the seventh planet. The planet and its twenty seven moons orbit very far from the Sun. In addition to helium and hydrogen, Uranus' atmosphere also contains ammonia ice, and methane ice. It is a very cold planet, with no internal heat source. One of the strangest things about Uranus is that it is tipped over and orbits the Sun on its side at a ninety-degree angle. It also has faint rings around it, and the twenty seven moons it has orbit from top to bottom instead of left to right like our Moon.



The eighth planet is Neptune. Like its neighbor Uranus; Neptune is made up of hydrogen, helium, ammonia ice, and methane ice. Unlike Uranus, Neptune does have



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Pluto is beyond Neptune and was considered a planet from its discovery in 1930. In 2006, Pluto was demoted and reclassified as a dwarf planet. Pluto exists in the Kuiper belt. That's just a fancy name for the band of rocks, dust, and ice that lay beyond the gas giants. Scientists have found objects bigger than Pluto in the Kuiper Belt.

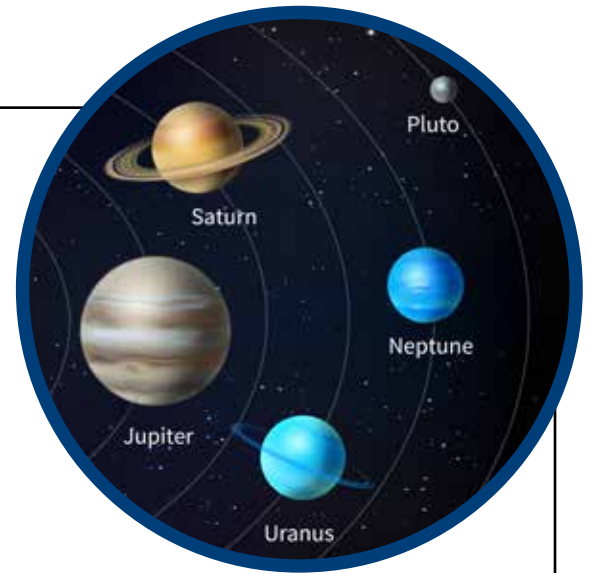


The outer solar system has many secrets to explore. What mysteries remain to be discovered in the gas giants and their many moons? Scientists think there may be liquid water on Jupiter's Europa. Perhaps life is growing underneath its icy layers. No one knows for sure, will you be the one to find out?

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1. What substances make up Saturn's rings?

_____ and _____

2. Which two gases make up most of Jupiter and Saturn?



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d. They are both planets.

5. Neptune is further away from the Sun than Uranus, yet Uranus is colder than Neptune. Explain how this can be possible.

6. What is the Kuiper Belt?

- a. an area of rocks, dust, and ice that is between Jupiter and Saturn
- b. an area of rocks, dust, and ice that is beyond Pluto
- c. an area of rocks, dust, and ice that includes Pluto
- d. an area of rocks, dust, and ice that surrounds Saturn's rings

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