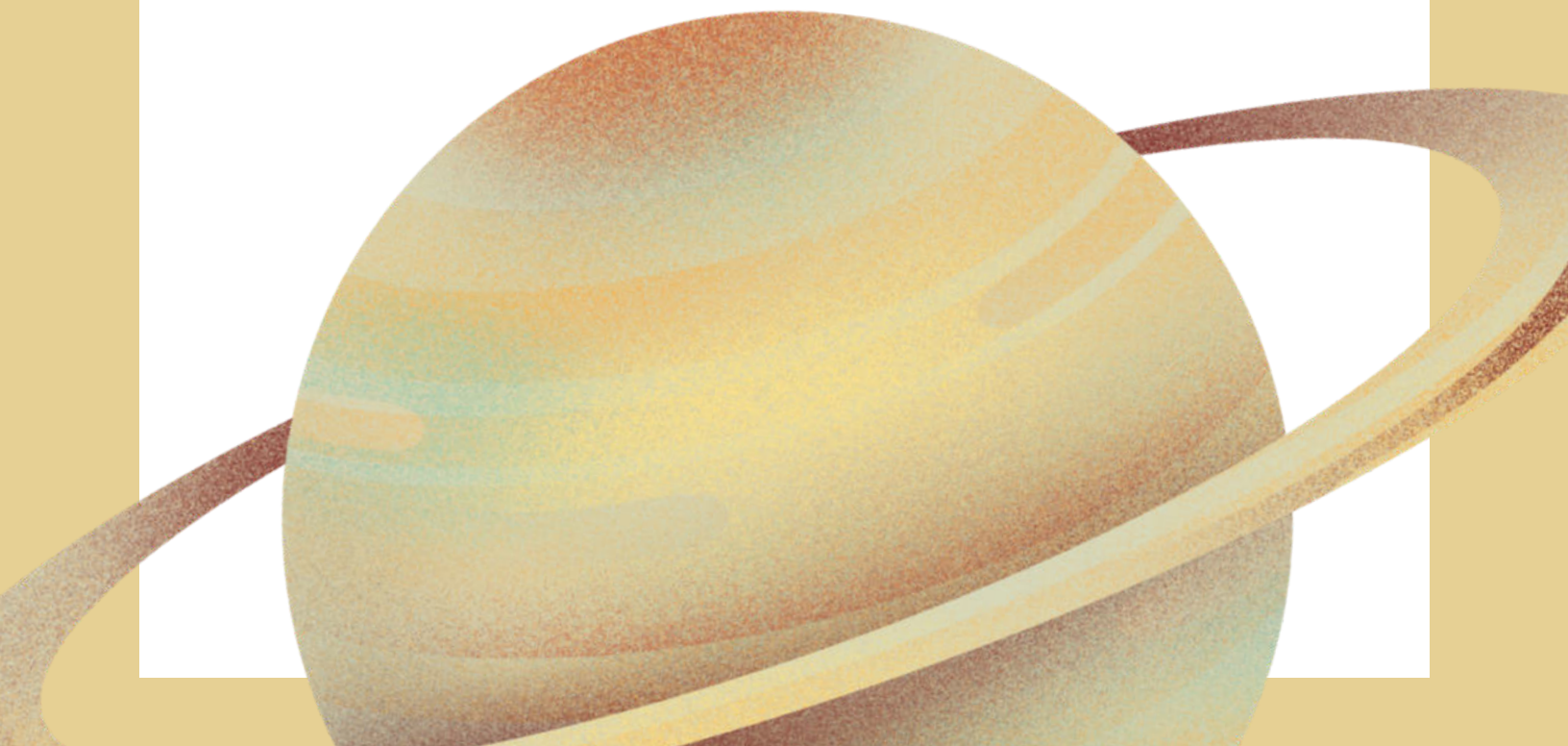


SATURN

Saturn is the sixth planet from the sun and the second largest planet in our solar system. It is a gas giant planet, meaning it is composed primarily of hydrogen and helium, with a relatively small rocky core. Saturn has a diameter of about 116,460 kilometers (72,460 miles) and is about 1.43 billion kilometers (887 million miles) away from the sun.

Saturn has a very active atmosphere, with winds that can reach up to 1,500 kilometers (930 miles) per hour and frequent storms, including the Great White Spot, a giant storm that occurs about every 30 years. Saturn has 82 known moons and a system of rings, which are made up of ice and rock particles. Its rings and moons make Saturn one of the most visually stunning objects in our solar system and provide important clues about the formation and evolution of gas giant planets and their satellite systems.



SATURN

Complete using full sentence answers:

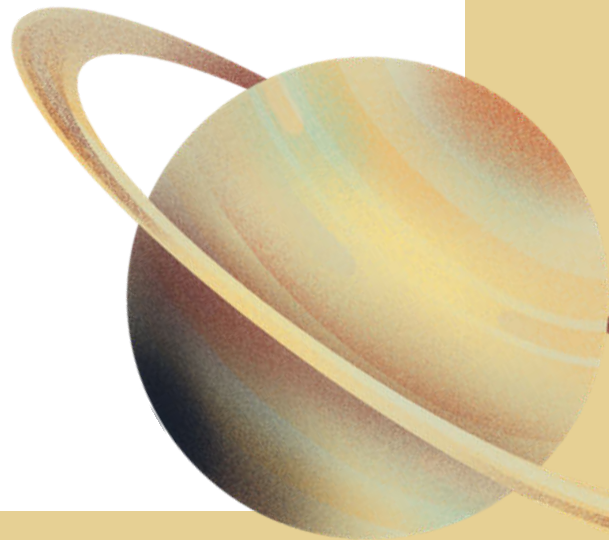
What is meant by a 'gas giant'?

How many moons does Saturn have?

Detail Saturn's ring system:

Why is Saturn visually stunning?

Explain Saturn's atmosphere:



MERCURY

Mercury is the smallest and closest planet to the sun in our solar system. It is a terrestrial planet, meaning it has a solid surface. Mercury has a diameter of about 4,880 kilometers (3,032 miles) and is about 77 million kilometers (48 million miles) away from the sun at its closest approach.

Mercury has a heavily cratered surface with evidence of past volcanic activity. Despite its proximity to the sun, Mercury is one of the coldest planets in our solar system, with surface temperatures that can drop to -290°F (-180°C) at night.

Mercury has no moons and no significant atmosphere to retain heat, so its surface is heavily bombarded by meteoroids and cosmic rays. This has left the surface with numerous craters, cliffs, and valleys, providing a glimpse into the early history of the inner solar system.



MERCURY

Complete using full sentence answers:

Describe Mercury's size:

How many moons does Mercury have?

Explain why Mercury is so cold:

Where is Mercury located within the Solar System?

Why is Mercury heavily cratered?



VENUS

Venus is the second planet from the sun and is the closest planet to Earth. It is similar in size and structure to Earth. Venus has a diameter of about 12,104 kilometers (7,521 miles) and is about 108 million kilometers (67 million miles) away from the sun.

Venus has a thick, toxic atmosphere composed of carbon dioxide, with clouds of sulfuric acid that constantly shroud its surface. It is the hottest planet in our solar system, with surface temperatures reaching up to 864°F (462°C).

Venus has a slow rotation and no moons, but it does have a number of large and unique features, including vast volcanic plains and towering mountains.

Overall, Venus is a fascinating and unique planet. It is one of the most hospitable planets in our solar system and provides a glimpse into the potential for other, similar rocky planets elsewhere in the galaxy.



VENUS

Complete using full sentence answers:

How are Venus and Earth similar?

How many moons does Venus have?

Explain Venus' terrain:

Why do you think Venus is the hottest planet?

Why is Venus not a suitable place for humans to live?

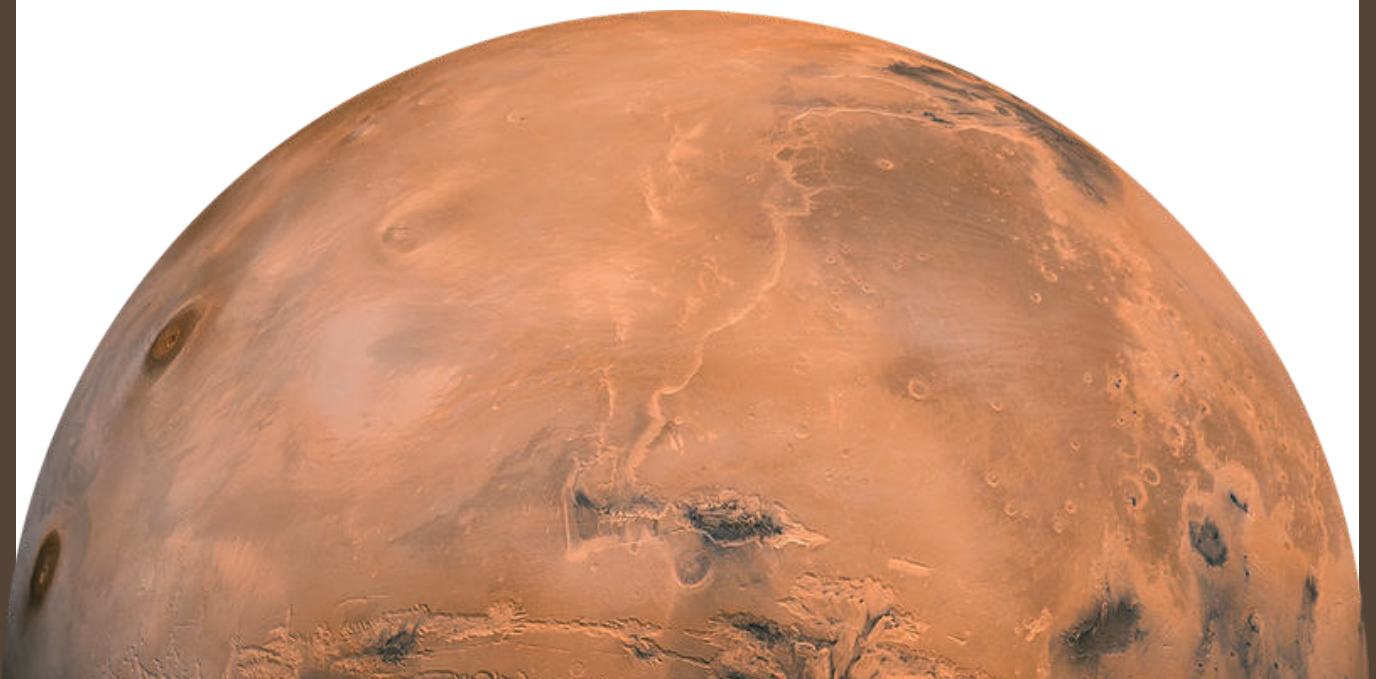


MARS

Mars is the fourth planet from the sun and is the second closest planet to Earth. It is often referred to as the "Red Planet" due to its reddish appearance, which is caused by rust on its surface. Mars has a thin atmosphere consisting of carbon dioxide, nitrogen and argon. Mars has the largest volcano (Olympus Mons) and the deepest canyon (Valles Marineris) in the solar system. It also has two small moons, Phobos and Deimos, which are thought to be captured asteroids.

Mars has a day-night cycle that is similar to Earth's, with a 24.6-hour day. Its surface is cold and dry, with average temperatures ranging from -80°F (-62°C) at the poles to 70°F (20°C) near the equator.

Exploration of Mars has been a focus of both robotic missions and plans for human exploration. Recently, several missions have been sent to Mars to search for signs of past or present life and to gather data on the planet's geology, climate, and atmosphere. Mars is a fascinating planet with many mysteries yet to be explored.

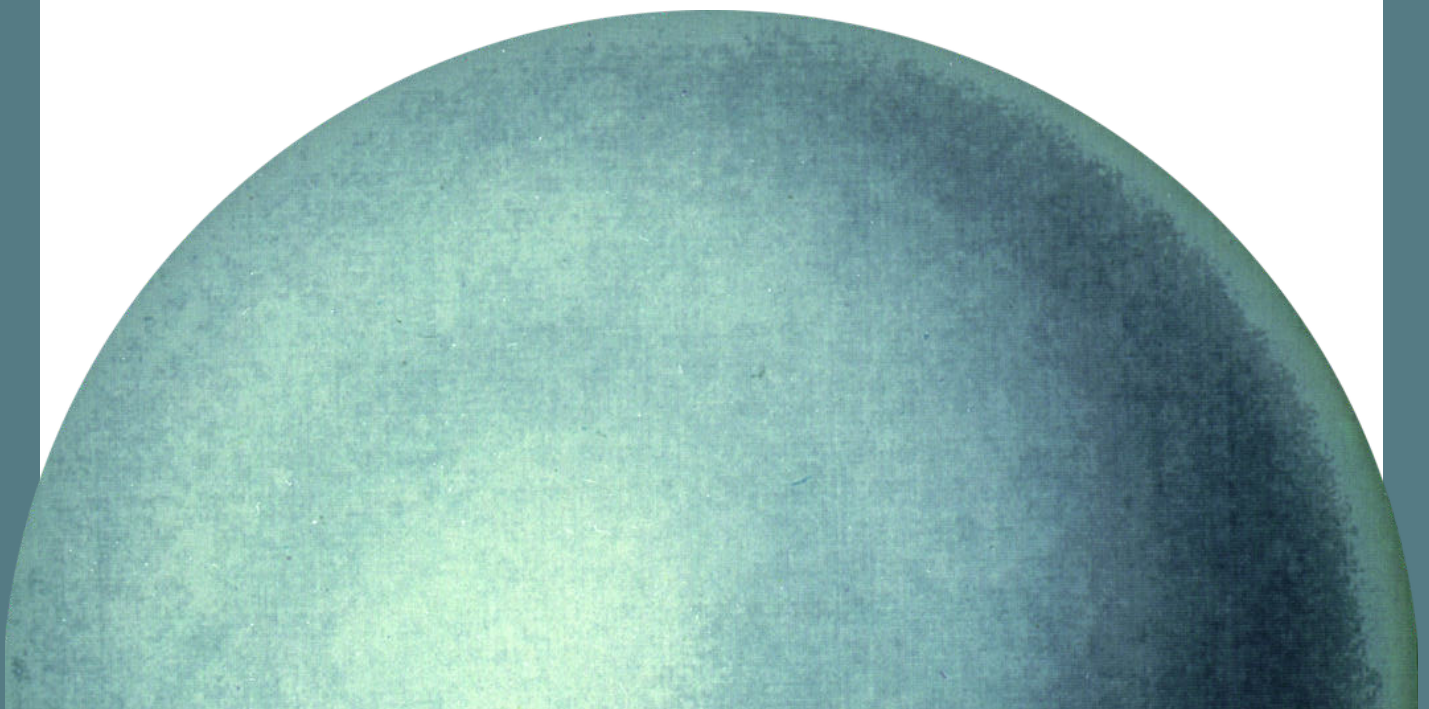


URANUS

Uranus is the seventh planet from the sun and the third largest planet in our solar system. It is a gas giant planet, meaning it is composed primarily of hydrogen and helium, with a relatively small rocky core. Uranus has a diameter of about 50,724 kilometers (31,189 miles) and is about 1.7 billion kilometers (1.1 billion miles) away from the sun.

Uranus has a unique and fascinating atmosphere, which is composed primarily of hydrogen and helium, with small amounts of methane. This methane gives Uranus its distinctive blue-green color, and its atmosphere also contains a number of cloud systems and storms. Uranus has 27 known moons. Uranus also has a ring system, which was discovered in 1977.

Its atmosphere and moons make it one of the most important objects in our solar system for understanding the evolution of gas giant planets and the potential for life elsewhere in the galaxy.



URANUS

Complete using full sentence answers:

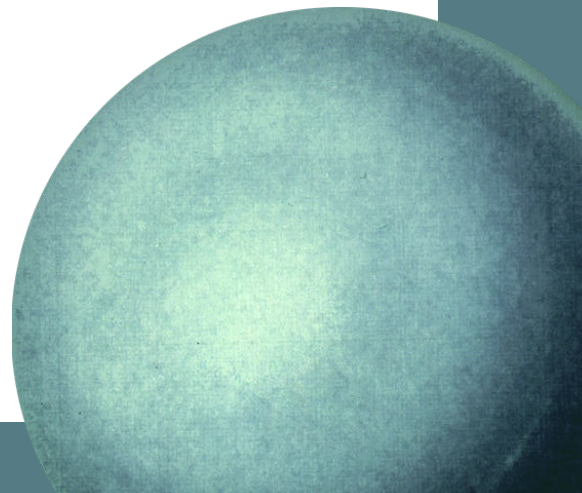
What is meant by a 'gas giant'?

How many moons does Uranus have?

Explain Uranus' color and appearance:

Detail Uranus' position within the Solar System:

Why is Uranus not a suitable place for humans to live?



MARS

Complete using full sentence answers:

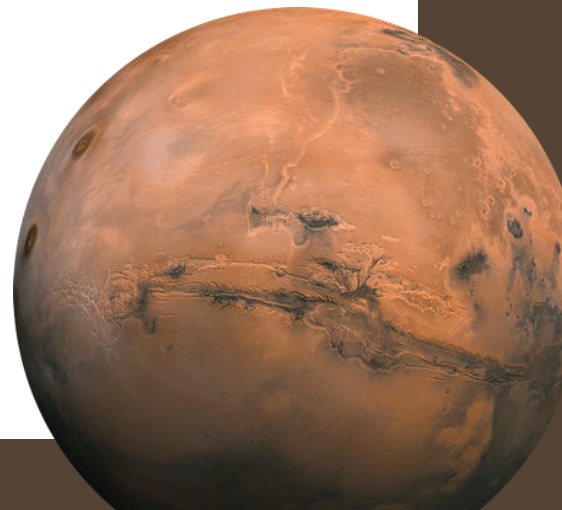
Describe where Mars lies in the Solar System:

How many moons does Mars have?

Why does Mars appear red?

Why has there been an interest in scientific exploration of Mars?

Write down three interesting facts about Mars:



EARTH

Earth is the third planet from the sun and is the only known planet to sustain life. It is a terrestrial planet with a diverse range of environments, including land masses, oceans, and atmosphere. Earth has a diverse climate, with temperatures ranging from below freezing at the poles to over 100°F (37.8°C) in some tropical regions.

The Earth's diameter is approximately 12,742 kilometers (7,918 miles), and it has a circumference of about 40,075 kilometers (24,901 miles) at the equator. It is about 93 million miles (149.6 million kilometers) away from the sun.

Earth is home to an incredible variety of life, including millions of different species of plants, animals, and microorganisms. Humans are the most recent addition to the planet's diverse array of life forms. Overall, Earth is a unique and remarkable planet, with a rich natural history and a complex system that sustains life.



EARTH

Complete using full sentence answers:

Explain why Earth is sustainable for life:

How far away from Earth is the Sun?

Explain the differing temperatures on Earth:

What do you think a 'microorganism' is?

What was the most interesting fact you learnt about Earth?



JUPITER

Jupiter is the fifth planet from the sun and the largest planet in our solar system. It is a gas giant planet, meaning it is composed primarily of hydrogen and helium, with a relatively small rocky core.

Jupiter has a diameter of about 139,822 kilometers (86,881 miles) and is about 778 million kilometers (484 million miles) away from the sun. It has a mass of about 1.898×10^{27} kilograms, making it more bigger than all the other planets in our solar system combined.

Jupiter has a very active atmosphere, with winds that reach up to 620 miles (1,000 kilometers) per hour. It has frequent storms, including the Great Red Spot, a giant storm system that has raged for at least 400 years.

Jupiter has 79 known moons. The planet was known to the ancient civilizations and has been studied by astronomers for centuries. In recent decades, a number of spacecraft have flown by and orbited Jupiter, allowing us to learn more about this massive and fascinating planet and its moons.



JUPITER

Complete using full sentence answers:

How big is Jupiter?

How many moons does Jupiter have?

What is a 'gas giant'?

What is the 'Great Red Spot'?

How long have people known about Jupiter?



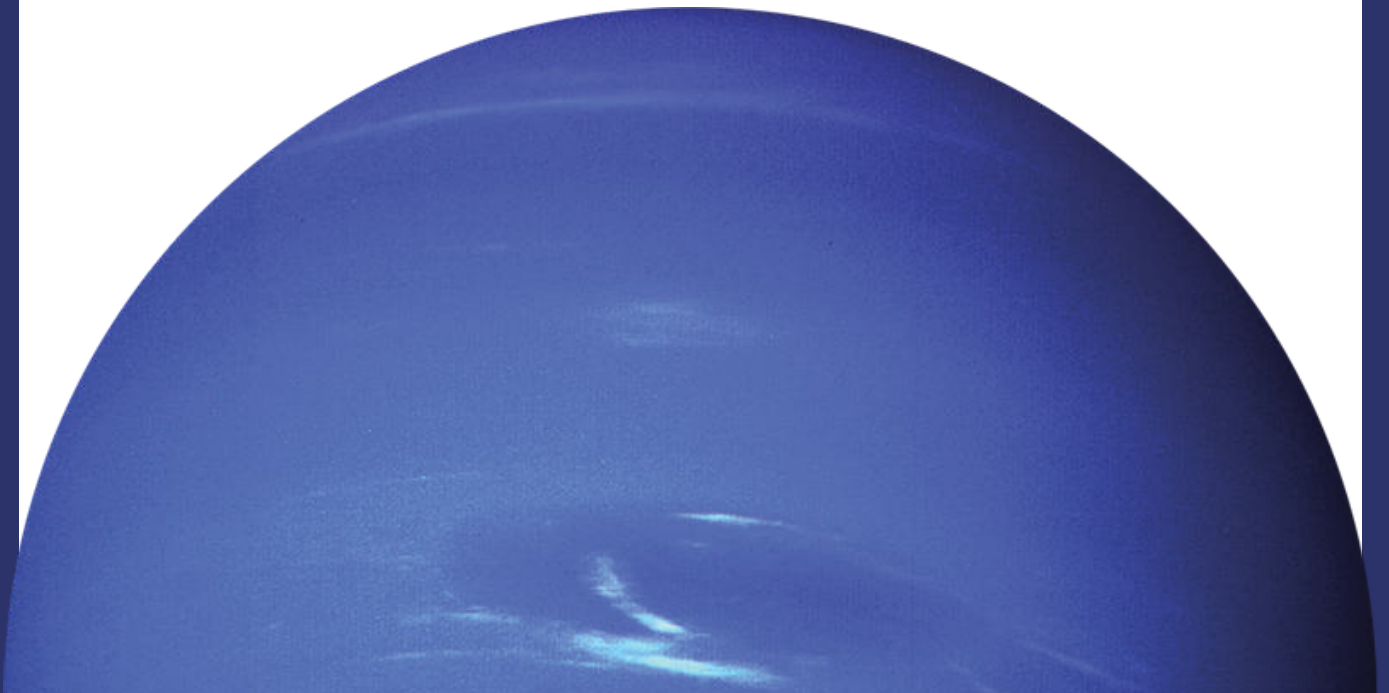
NEPTUNE

Neptune is the eighth and farthest planet from the sun in our solar system. It is a gas giant planet, meaning it is composed primarily of hydrogen, helium, and methane, and has a relatively small rocky core.

Neptune has a diameter of about 49,244 kilometers (30,779 miles) and is about 4.5 billion kilometers (2.8 billion miles) away from the sun. It is the third largest planet in our solar system, after Jupiter and Saturn.

Neptune has a very active atmosphere, with high-speed winds and frequent storms, including the Great Dark Spot. It has 13 known moons, including Triton, which is the largest and one of the coldest objects in our solar system.

Overall, Neptune is a fascinating planet, with a rich and complex atmosphere. Its distance from the sun makes it difficult to study, but ongoing and future missions will continue to reveal new information about this distant world.



NEPTUNE

Complete using full sentence answers:

Detail Neptune's position within the Solar System:

Which two planets are larger than Neptune?

What is the Great Dark Spot?

Why is it difficult for scientists to study Neptune?

Why is Neptune not a suitable place for humans to live?

