

# OGUN DIGICLASS

**CLASS: PRIMARY SCHOOL**

**SUBJECT: BASIC SCIENCE**

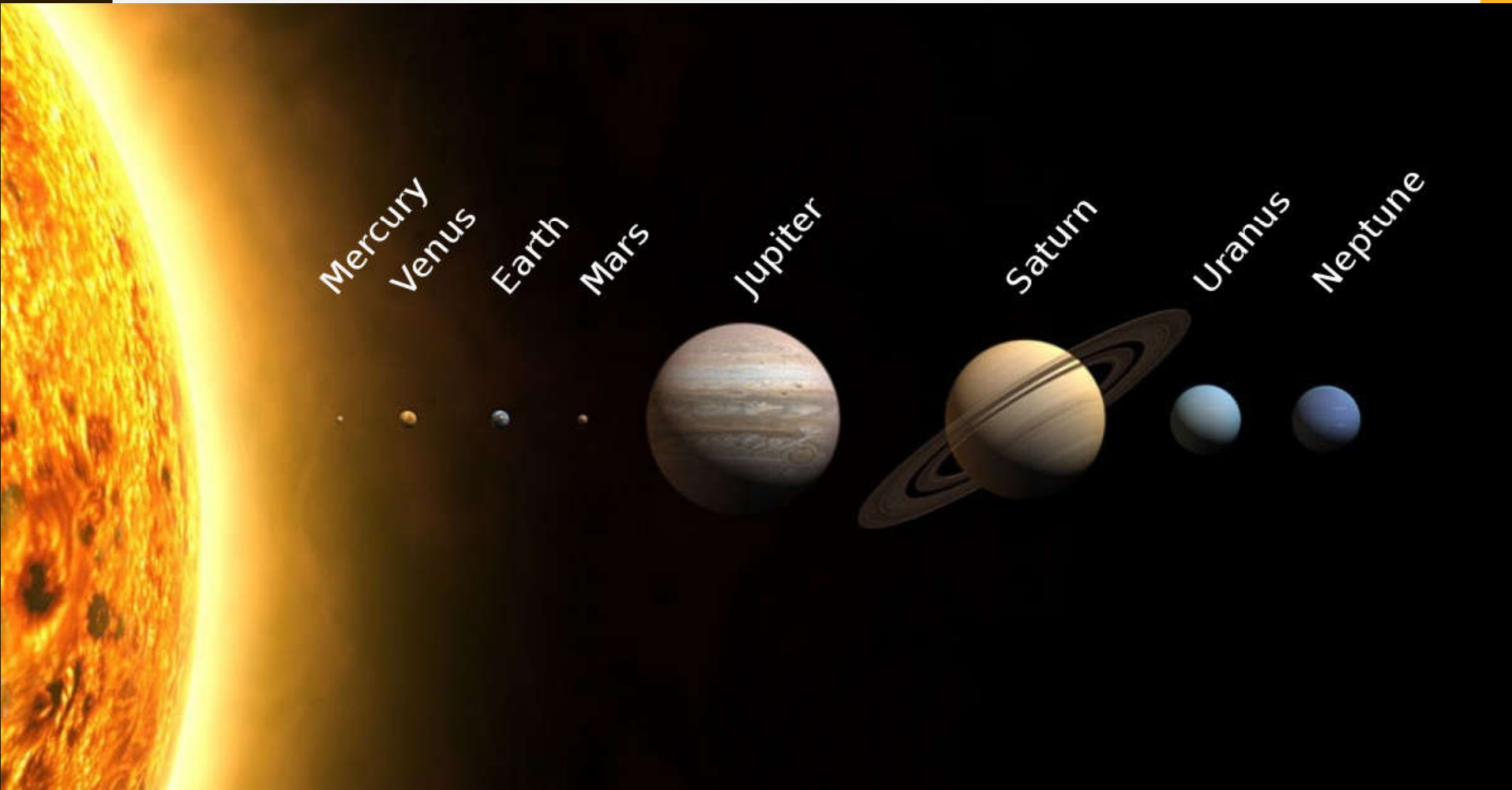
**TOPIC: SOLAR SYSTEM**

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# The Solar System and Beyond



# LESSON OBJECTIVES

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- Describe the Solar System
- Identify the eight planets.
- Understand some terminologies relating to the solar system.



# STARTER ACTIVITY

Have you ever looked up into the sky and wondered what was there? If you have ever travelled by air, I'm sure you would have wondered what still lies up there in the sky, beyond the stars and clouds. Today I would be explaining what the *solar system* is all about.

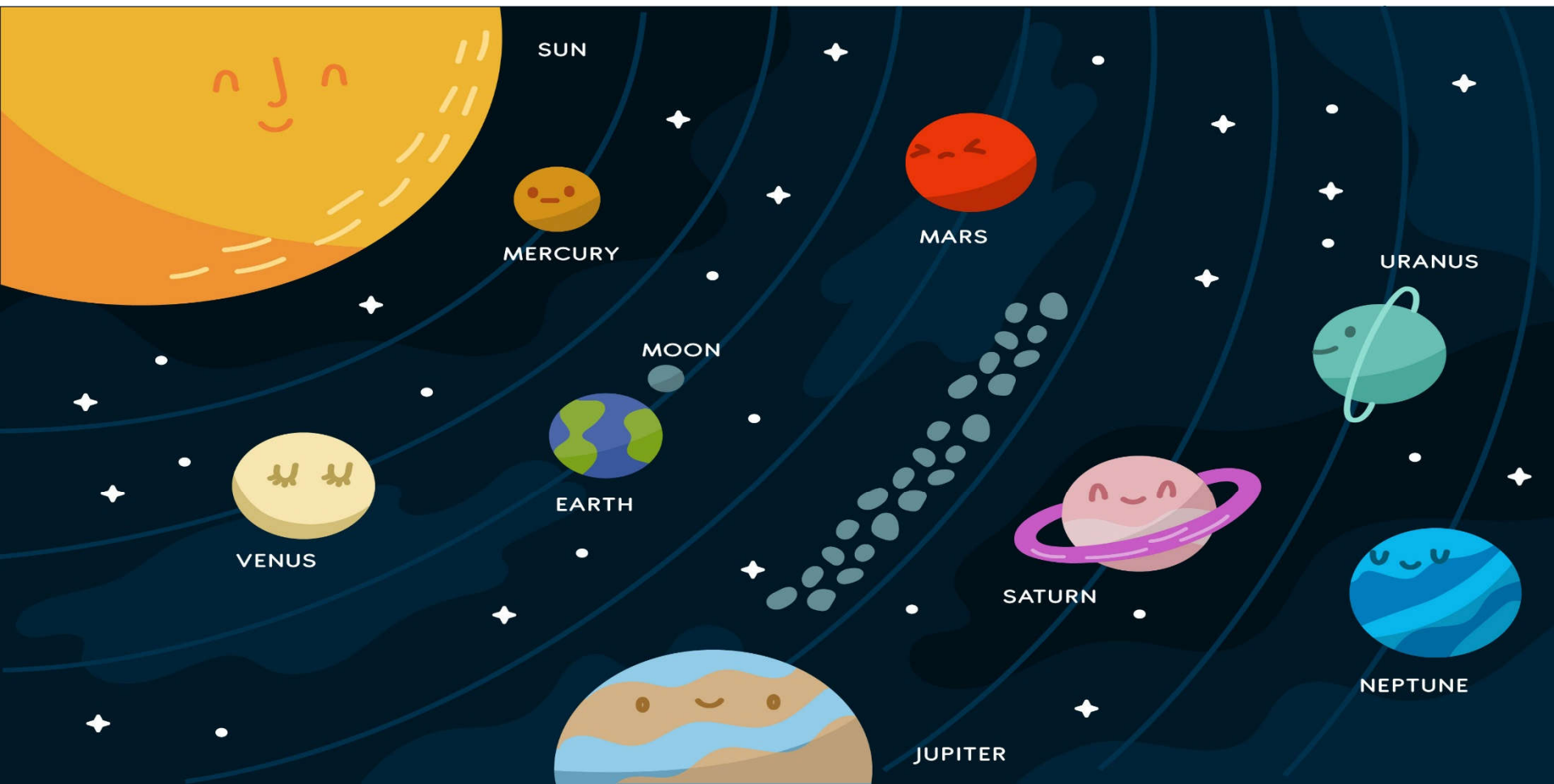


# What is the Solar System?

The Solar System includes the Sun, the Earth (where we are now!) and all of the other planets that go around it.



We call it the **Solar System** because everything in it is centered around the sun, and solar means something that has to do with the sun. The sun is a star, just like many of the stars that you can see in the night sky. As close as the sun seems to us , it is almost 93 million miles away; that is why it looks so small.





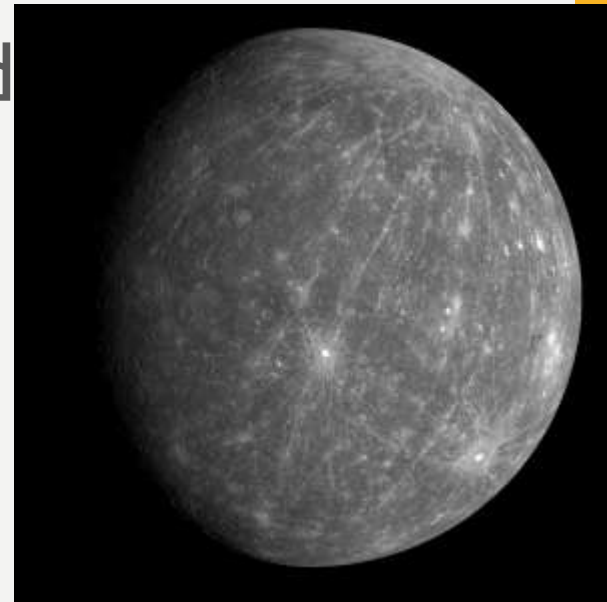
**The Sun** is a massive ball of hot gas that gives off light and heat. The sun is so big that it is more than 100 times wider than the earth. More than that, the sun is what holds the solar system together. The sun is also what allows us to live on earth. Without the sun, there would be no heat and light. Plants would not grow, water would freeze and nothing would survive.



There are **eight planets** that orbit around the Sun. As we move away from the sun, the first planet we encounter is mercury.

Mercury is the closest planet to the Sun and is the **smallest** planet in the solar system.

Mercury is visible from the naked eye; it looks more like a bright star, and many nights you can see it close to the horizon near the sunrise and sunset.





- Next is venus, the second planet. Venus is called the morning star or evening star because it is always close to the sun during sunrise or sunset. It is close to the size of the earth and it is mostly made of carbon dioxide gas.
- Out of all planets in the solar system, Venus is the hottest.

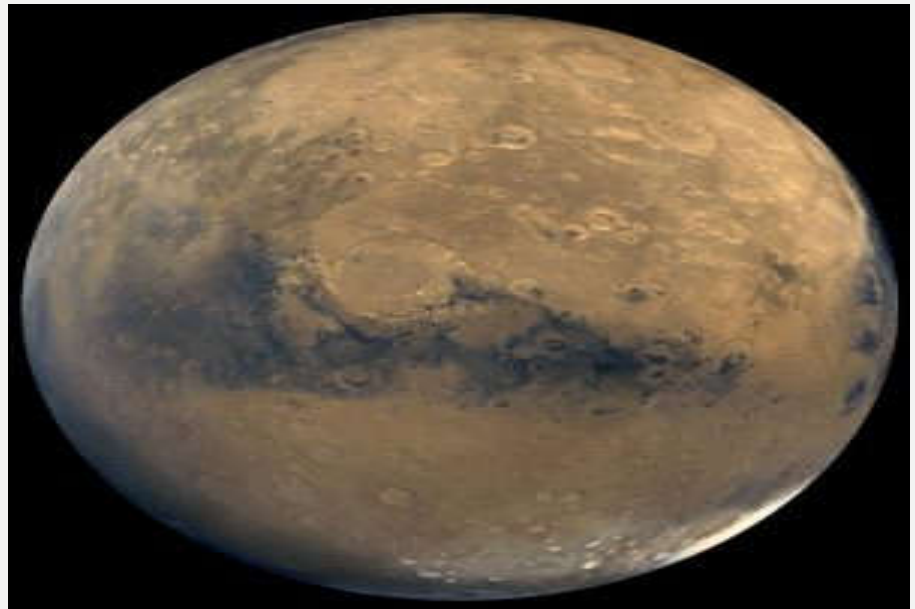


- After Venus comes **Earth**, the third planet from the sun. Of course you all know about Earth. Earth is where we live. Earth is the only planet known to have living things because it is not too hot and not too cold.





Lets move to the next planet called **‘MARS’- The Fourth planet from the sun**. Mars is known as the **‘Red planet’**, because iron oxide gives it a reddish colour. It is cold and rocky, with a thin atmosphere made of carbon dioxide and oxygen. There is water ice on Mars and that makes scientists very interested in Mars because they think people could live there with the help of some special equipment.

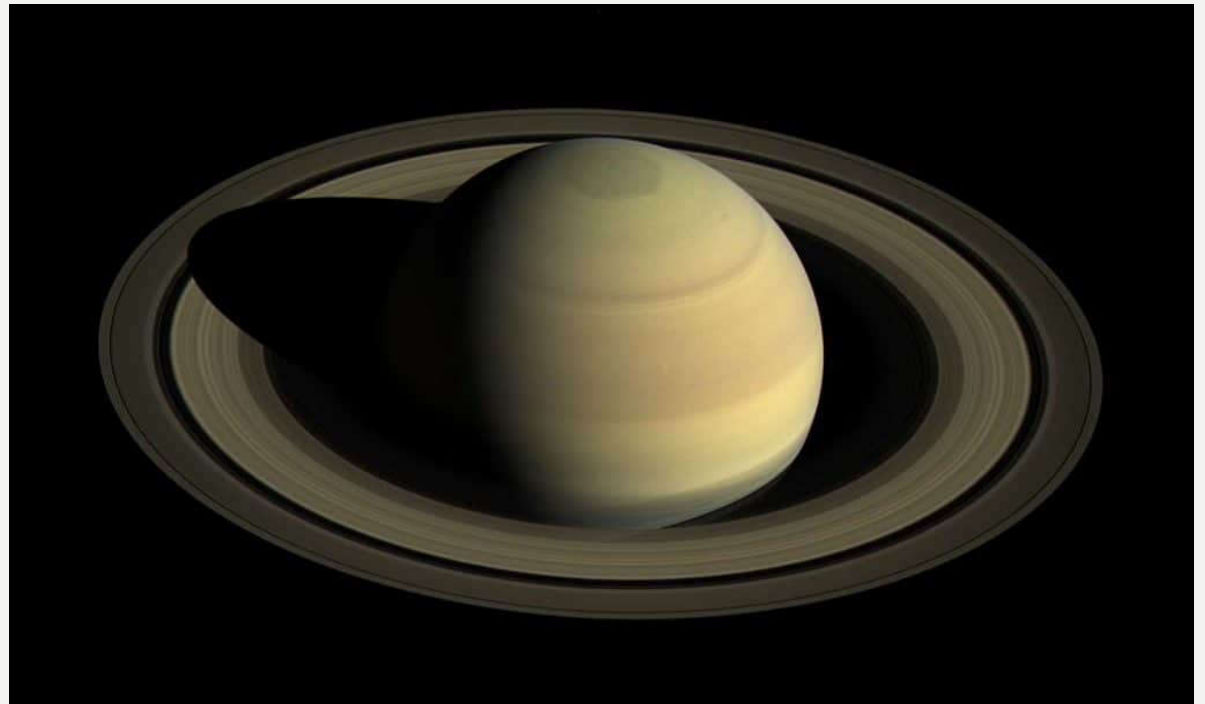


**Jupiter** comes next, the fifth planet in the solar system. Jupiter is the largest planet in the solar system. Jupiter is so big that you would have to place 11 earths end to end just to stretch across its middle. Jupiter has at least 67 moons that circle around it, but 55 of them are very small. Some of its moons are very large, and at least two of them are about the size as the planet mercury. People cannot land on Jupiter because it is made of gas.

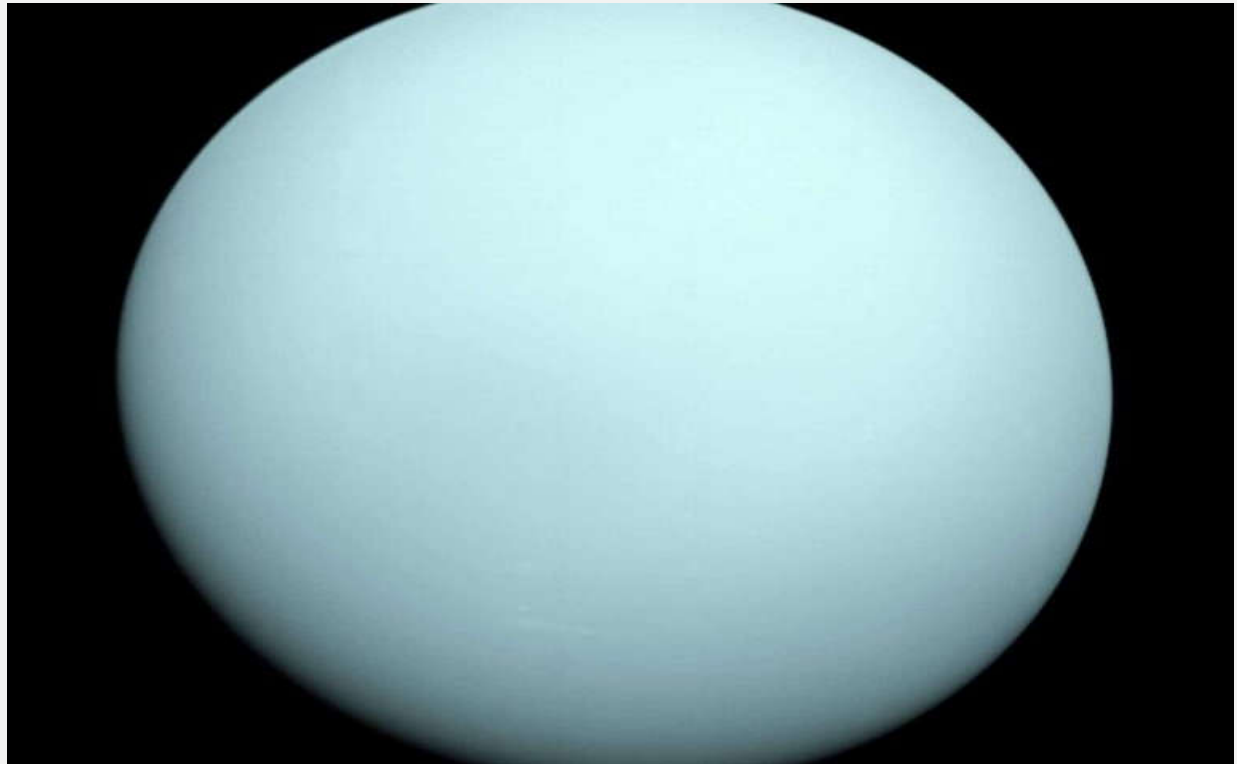




After Jupiter comes Saturn, another gas giant. Saturn is arguably the most beautiful planet in the solar system. It is mostly known for its beautiful rings. Saturn is less dense than water. Saturn has more than sixty moons orbiting around it.



After Saturn comes Uranus- the seventh planet from the sun. The planet has a blue-green colour because of a gas called, Methane, in its atmosphere. Uranus has 11 inner rings and 2 outer rings. Uranus has 27 known moons.





Very similar to Uranus is Neptune, the eighth planet from the sun.

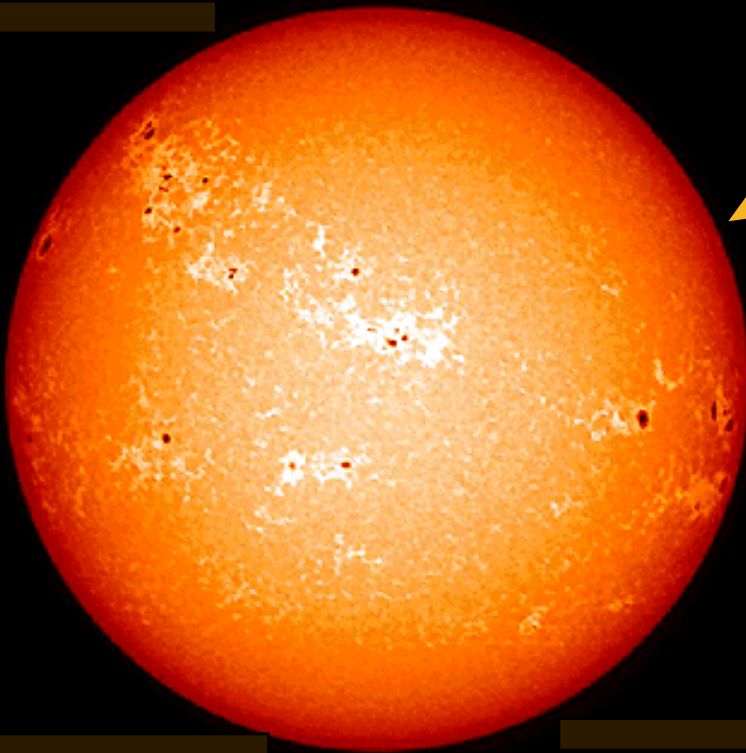
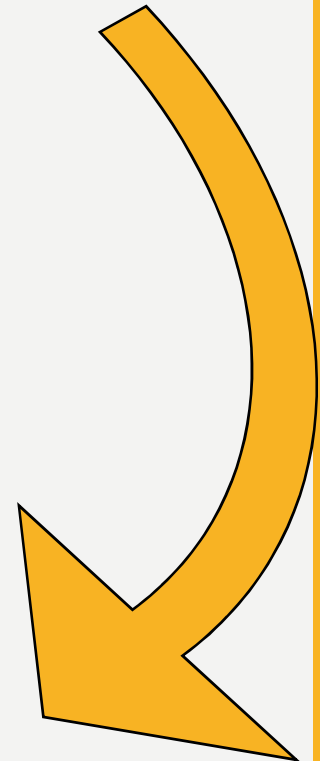
Neptune is another gas giant. It has a darker blue colour than Uranus and has 14 moons.



- Back when we were in school there were 9 planets in the solar system: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune & Pluto. But now there are only 8 planets in the solar system. What happened?
- Well, it all changed after the discovery of Eris by Mike Brown. In 2006 scientists started to speculate whether Pluto is a Planet or not. Pluto was demoted as a planet in 2006 by a group of scientists who redefined the definition of a planet.

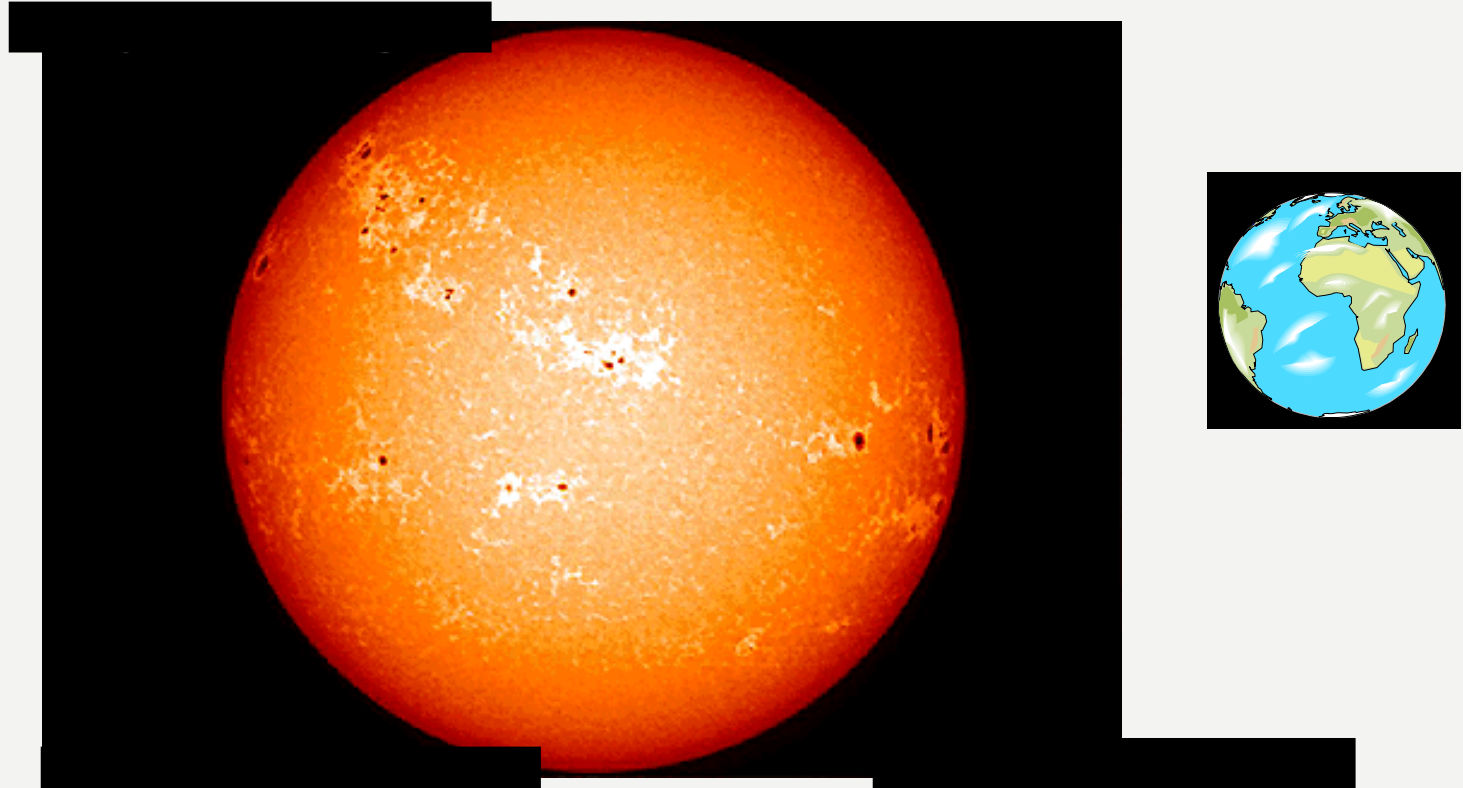
# The Earth is kept in orbit by the force of... Gravity

This is the same force that keeps the Earth and the other planets orbiting around the Sun.



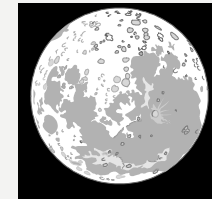
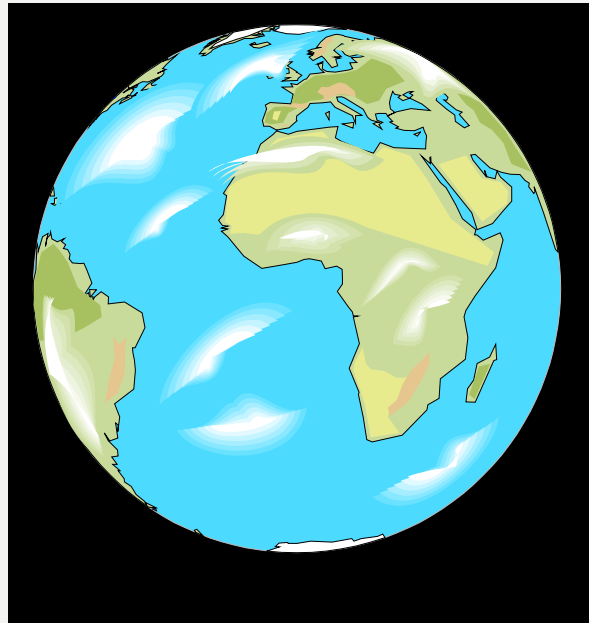


**The Earth orbits the sun  
every.....year (365  $\frac{1}{4}$  days) and  
we call this a year**



***GRAVITY ALSO KEEPS THE MOON IN ORBIT AROUND  
THE EARTH. THE MOON ORBITS THE EARTH EVERY...***

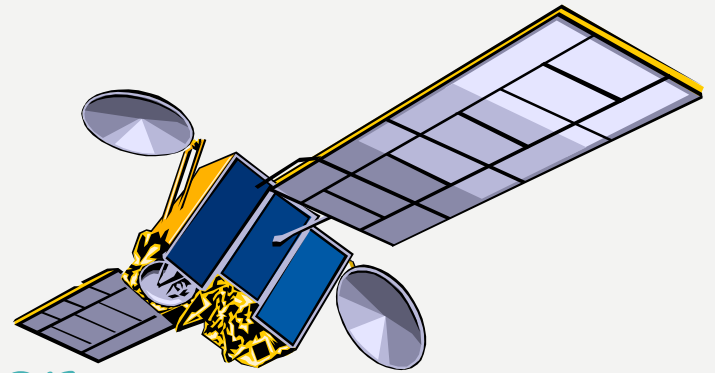
...month (28 days)



# THE MOON IS A “NATURAL SATELLITE”. A SATELLITE IS ANYTHING THE ORBITS THE EARTH

Artificial satellites have four main uses:

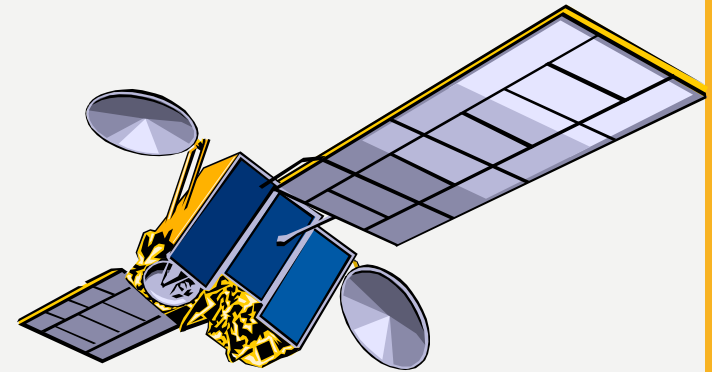
- *Communications*
- *Monitoring the weather*
- *Observing the Earth*
- *Exploring the solar system*





# QUIZ

1. What is the largest planet?
2. Which freezing planet is the farthest away from the Sun?



# ANSWER

1. What is the largest planet?

**Jupiter**

2. Which freezing planet is the farthest away from the Sun?

**Neptune**

