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# **Lesson 1: Solar System**

Solar system is system or collection that is made up of heavenly bodies that orbit the sun. We are known to the eight planets, stars, the sun, and the moon. Our solar system is located in the Milky way galaxy. Galaxy is the gravitational connected system of stars.

The first four planets in our solar system are called Terrestrial or Inner planets. And other four planets are called Gas giants or Outer planets. There are also other heavenly bodies like Asteroids, Meteoroids and Comets.

# Lesson 2: Inner planets and Outer planets

## Inner planets

Planets closer to the sun are called inner planets. And the Earth is a terrestrial planet where we are living. Lastly Inner planets or Terrestrial planets have few moons or no moons.

## Outer planets or Jovian Planets

Are planets that are made with gas and they are bigger than the terrestrial planets. Some of them also have different types of strong storms. Lastly like Terrestrial planets, these also have few moons or no moons.

There are 2 parts of Outer planets or Jovian Planets. First are called as **Gas Giants**. They are Jupiter and Saturn. And other 2 planets are called as **Ice Giants** They are Uranus and Neptune.

# Lesson 3: Planets

Ok, so in this topic we will learn about all the 8 planets in our Solar System.

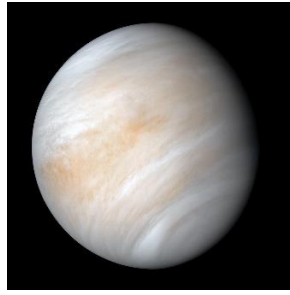
Here is a list of the planets:

Terrestrial planets	Gas giants
Mercury	Jupiter
Venus	Saturn
Earth	Uranus
Mars	Neptune

**Mercury** is a first planet from the sun. Its temperature is so 430 degrees Celsius or 800 degrees Fahrenheit than other planets. Its colour is grey and some white dots connected. It has no moons.



**Venus** is a second planet from the Sun. It has 864 degrees Fahrenheit or 462 degrees. Its colour is yellow and white mixed, this is because it is hot. It has no moons.



**Earth** is the third planet from the sun. It is litter bigger in size than Venus. It has one large moon that rotates around the it or you can say it is main satellite of Earth. Its colour is blue and the green. Green is land and blue is water. Earth is the planet where we live. And the only know planet where humans and animals are living. The moon of the Earth is made by asteroids.



**Mars** is the fourth planet from the sun. Its colour is red. It has 2 moons. Our astronauts are trying to go to mars and researching for water and life. There is only red land and black mountains.

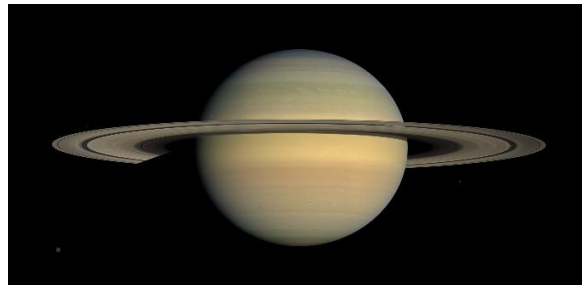


**Jupiter** is the fifth planet from the sun. It is the largest planet in our Solar system. It has 79 moons. And the largest moon in our Solar system called Ganymede. And

lastly it has a big storm called Great Red Spot. The storm is at southeast of Jupiter.  
And it is decreasing each year.



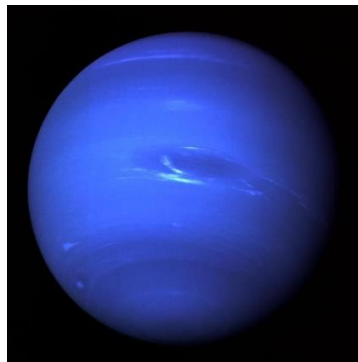
**Saturn** is sixth planet from the sun. It has at least 82 moons. It has a ring. It is horizontal. Saturn's colour is like Venus and the ring's colour is golden. Also, the ring is made with ice, dust, and rock particles.



**Uranus** is the seventh planet from the sun. Its colour is light blue. It has also ring but it is vertical. And it has 27 moons.



**Neptune** is the eighth planet from the sun. It has only 1% sunlight. It is dark blue in colour. It has a blue big spot on it which is the huge storm on it. And it has at least 14 moons.



## Lesson 4: Dwarf Planet



### Dwarf Planet

Ok so in this topic we will learn about dwarf planets. Dwarf planets are planet that are small. There are many dwarf planets but I will only tell you 3 large dwarf planets.



**Pluto** was known as ninth planet. But it became smaller so scientist consider that Pluto is dwarf planet. And Pluto has moons called Nix, Hydra, Styx, Charon, and Kerberos.





**Ceres** is the 2nd smallest dwarf planet in our Solar system. Its colour is grey like Mercury and have craters.



**Eris** has same size as Pluto. It has one moon named Dysnomia. It is also first dwarf planet in our Solar system. Eris is almost same size a Pluto Its colour is grey same as Ceres and Mercury.

# Lesson 5: Solar eclipse and Lunar eclipse

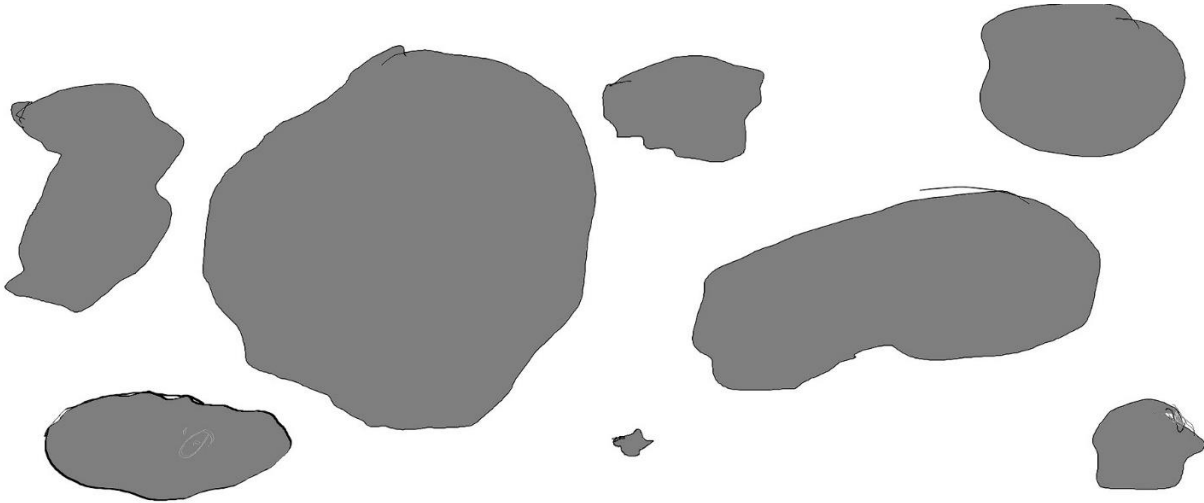
## **Solar eclipse**

Is when the Moon is between the Earth and the Sun. Moon blocks Sun's light to reach till Earth. And the back part of moon reflects on the Earth. And the moon gets light.

## **Lunar eclipse**

Is when the Earth is between the Moon and the Sun. Earth block Sun's light to go to the Moon. And the back part of Earth reflects on the Moon. And the Earth gets light.

## Lesson 6: Comets, asteroids and meteoroids



### **Comets**

A dirty snowball made of dust, frozen gasses, ice and rock particles. It orbits the sun.  
Comets can also hit Earth and create craters.

### **Asteroids**

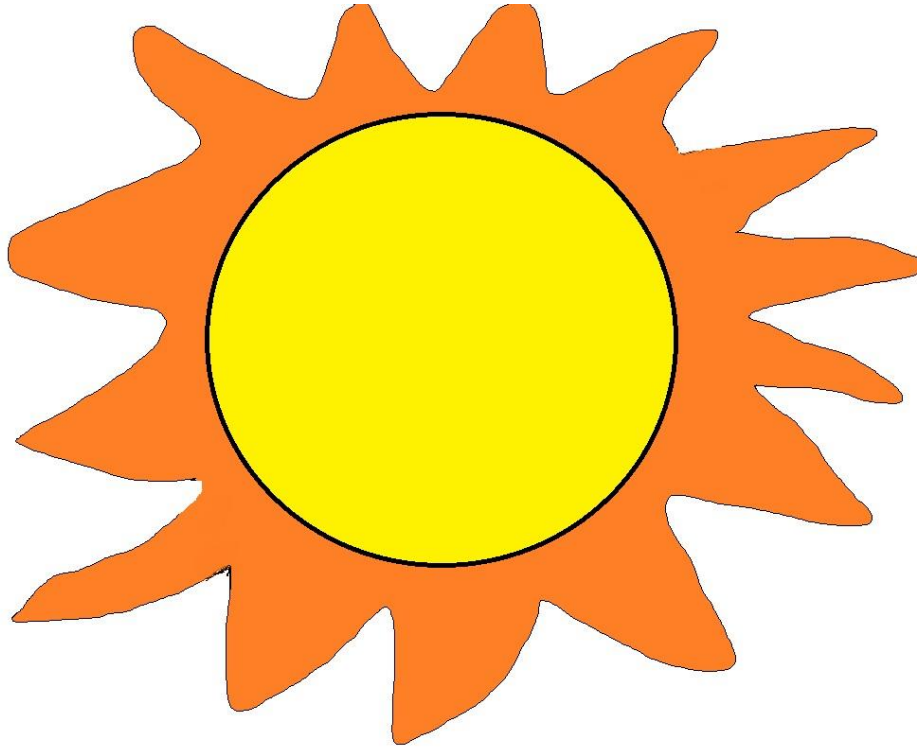
A huge shaped rock of. And we found many of it in the asteroid belt between the Mar and Jupiter. They are large object in the Solar system beside the planets and the moon. And hit Earth and create crater.

### **Meteors and Meteorites**

- Meteoroids are the thing that made with rock, ice and dust. They are heavenly body bodies.
- Meteor is the meteoroids that comes in the earth atmosphere and burns.
- Meteorites are meteoroids that come in the earth atmosphere and don't burn.

Meteoroid, Meteor and Meteorites hits Earth and creates craters.

## Lesson 7: Sun layers



Ok, so in this chapter we will learn about sun layers. But first what is Sun?

The **Sun** is the star at the centre of our Solar System. It is a perfect sphere of hot plasma. It is too big. We need 1.3 million Earths to fill the Sun. Sun is also called as **Sol**.

### **Core**

It is like a star. It produces light, heat and energy through the fusion of hydrogen.

### **Radiative zone**

The energy from the fusion travel or goes to radiative zone.

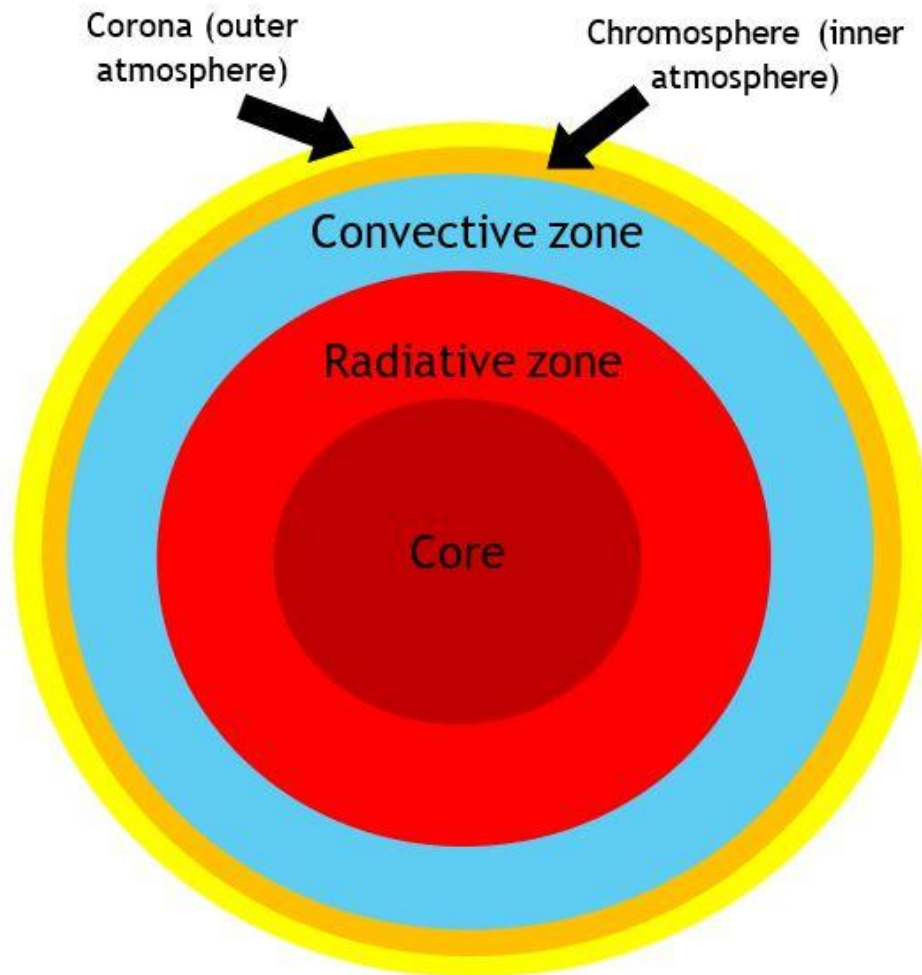
## **Convective zone**

The energy from the radiate travel to the convective zone.

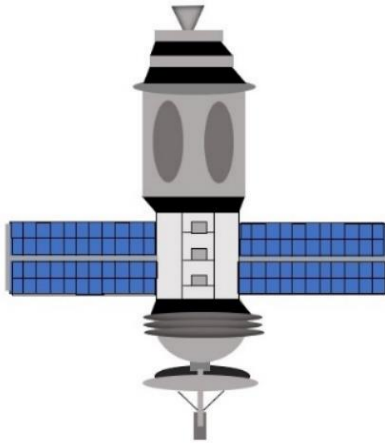
## **Atmosphere**

There are 2 different types of atmospheres on Sun. Corona (outer atmosphere)

Chromosphere (inner atmosphere).

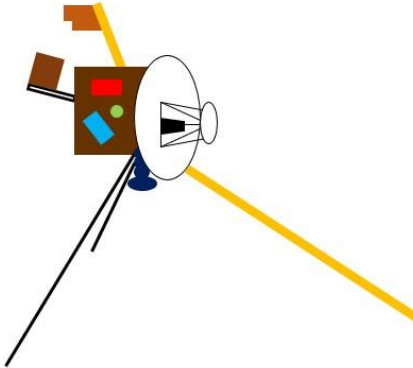


## Lesson 8: Space Exploration



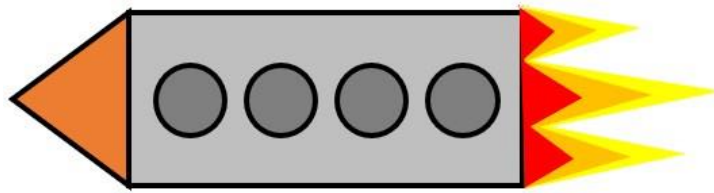
### **Satellites**

Is moon or machine that revolves around a planet or an object.



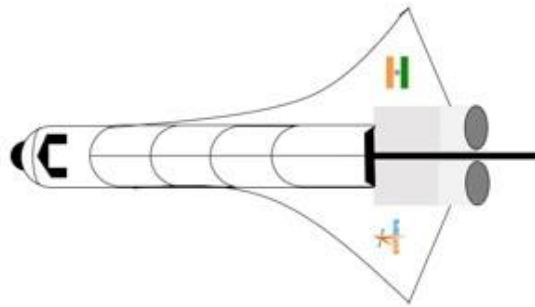
### **Space probes**

Are crafts that travel to space collecting and transmitting data back to the Earth.  
They use radio waves to transmit data.



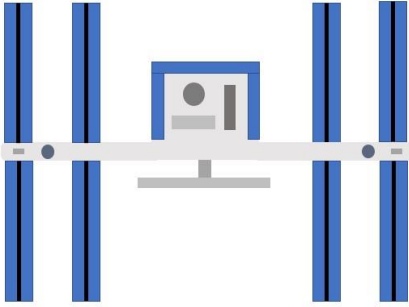
## **Rockets**

Are crafts that travel to space collecting and transmitting data back to the Earth.  
They use radio waves to transmit data.



## **Space Shuttles**

A space shuttle can transport satellites and astronauts to space. It is like airplane to space.



## **Space Stations**

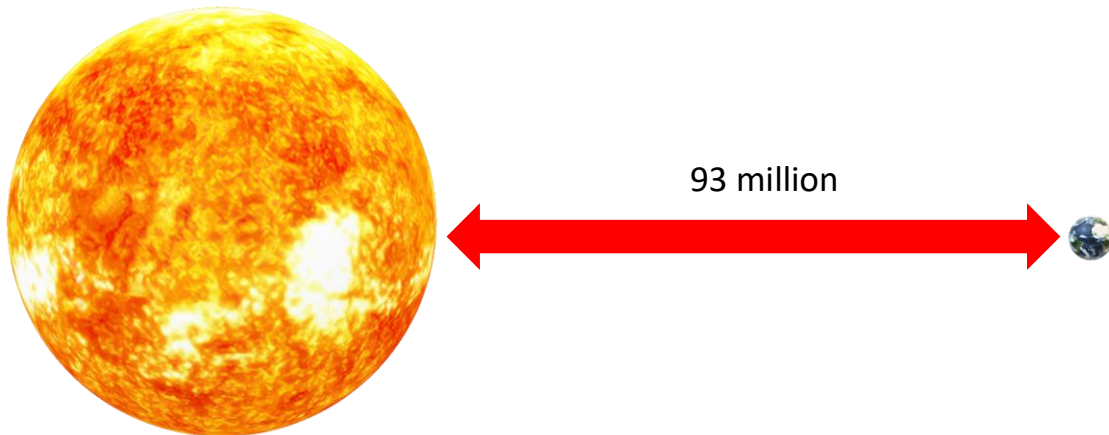
Is like combination of labs and apartments for astronauts in space. It is too big!



# Lesson 10: Facts about solar system

Now, I will tell you facts about solar system.

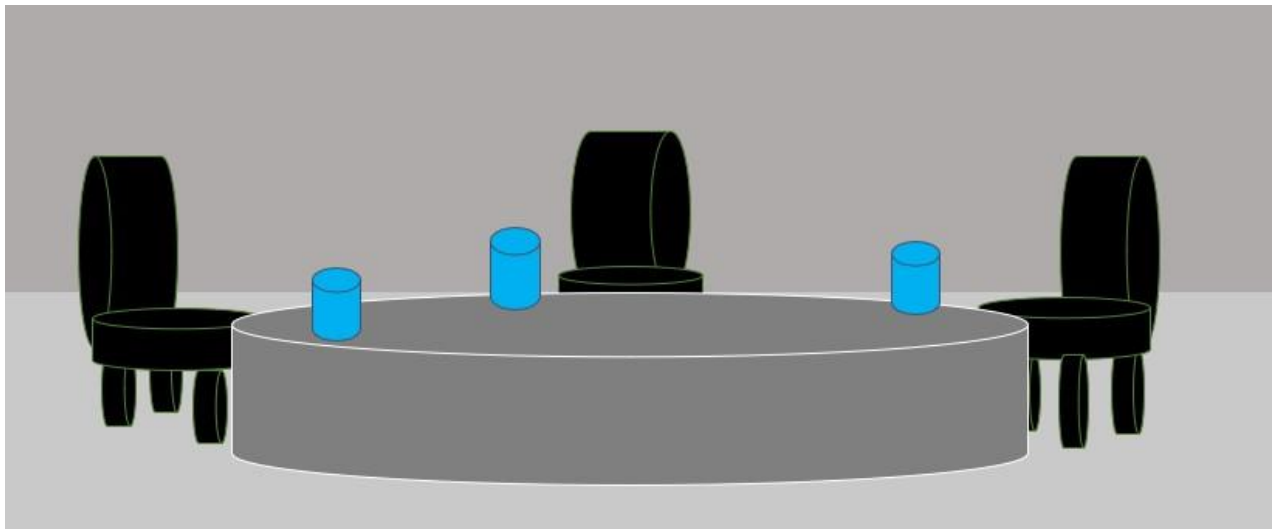
- Neptune get 1% light of sun.
- Earth is the 5th largest planet in our solar system.
- Earth to Sun distance is 93 million miles.
- 1,300 Earths are 1 Jupiter.
- Earth has 29% land and 96.54% water.



# Lesson 11: How far have humans gone?

NASA is American space agency.

- N-National
- A-Aeronautics
- S-Space
- A-Administration



## Missions

We had gone to moon in April 14 1970. It's the farthest place was human ever been from the Earth.

We also send rover to Mars. Rover is a motor vehicle that travels across the whole Mars. It's launched by NASA.

Scientists also launched a probe on April 2020. It is made in China. It's already reached Saturn.

# Voyagers

**Voyager 1** Is a space probe. It is sent by NASA in September 5 1977. It is 36 years in space. And it is 12 billion miles from Earth. It is already gone out of our Solar System.

Same with **Voyager 2**, it also a space probe. It is sent by NASA in 20 August 1977. Finally, it is also already gone out of our Solar System.

## Our Mars Mission

Humans are researching on Mars surface to discover water. If the mission is successful, Mars would be our second home. And we will be called "MARTIANS". Bye!!