

THE SOLAR SYSTEM



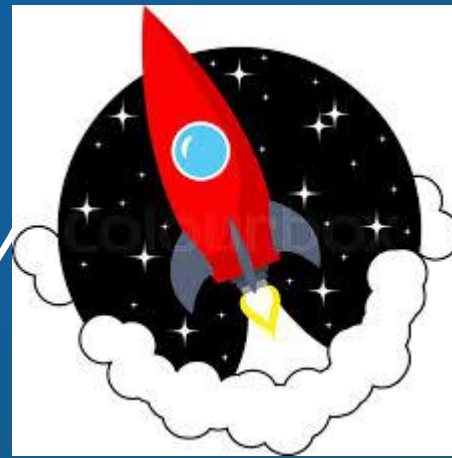
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INTRODUCTION



- ❖ There are eight planets in the Solar System.
- ❖ They are each a different distance away from the sun.
- ❖ From the closest to the furthest they are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.
- ❖ Mercury and Venus have no Moons.
- ❖ Earth only has one Moon and Mars has two Moons.
- ❖ Jupiter has more than 70 Moons.
- ❖ Altogether the Solar System has hundreds of Moons.

GRAV



- Planets and Moons don't move in a straight line through space. They move in Orbits, or oval shaped paths around bigger objects.
- This is because of a force called Gravity.
- The Sun's gravity pulls the planets and the planets gravity pulls at the sun.
- The larger the objects or the closer they are to each other, the stronger this force pulls at them.
- The Earth's Gravity keeps us on the ground.
- For a rocket to launch from Earth it must go very fast or gravity will pull it down.

ROCKY OR ICEY

- ❑ Between Mars and Jupiter is the Astroid Belt, a group of millions of Astroids (small rocky objects) that orbit the sun.
- ❑ Beyond Neptune is the Kuiper Belt it has billions of Icey objects called Comets.
- ❑ When Astroids and Comets are large enough, their own gravity makes them round, just like planets.
- ❑ We call them Dwarf planets.
- ❑ This is a picture of an Astroid belt



TWO FAMILIES OF



- The four planets closest to the sun are made of rocks and metals.
- They are called the terrestrial planets, or rocky planets.
- They are the smallest planets and have a hard surface.
- They also have a high density (how tightly something is packed together) and are mostly made of materials that would sink in water.

- The four planets furthest from the Sun are made of gas and have no solid ground.
- These are called Jovian planets.
- These planets are huge – more than 1,000 earths could fit into Jupiter!
- Unlike the rocky planets these are mostly made up of materials that



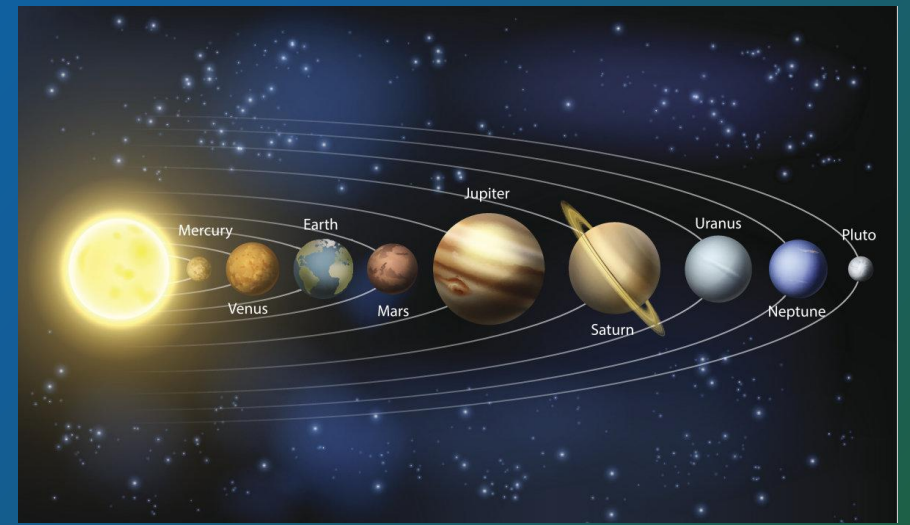
Jupiter

THE



- ❖ The sun is huge, with a diameter (the distance through its middle from one side to the other) 100 times larger than Earth's.
- ❖ It also contains 99.9% of the mass (amount of material) of the entire solar system! The sun is an enormous ball of hydrogen plasma.
- ❖ Its core has an extremely hot temperature of 15 million degrees (27 million farhanhite).
- ❖ At this temperature and density, atoms of hydrogen combine to become helium gas.
- ❖ This gives off energy in the form of heat and light, sunshine!

IT'S ALL A MATTER OF PERSPECTIVE



- The Solar system extends about two light years away from the sun—more than 100,000 times further than the distance of Earth from the sun.
- Our solar system is part of The Milky Way Galaxy.
- Compared to the size of the Milky Way, our entire solar system is just a tiny dot.
- The universe is made up of billions and billions of galaxies.
- It's almost impossible to imagine just how enormous the universe is!