



Jupiter

- Jupiter is the largest planet in the solar system.
- Jupiter was called Jupiter by the ancient Romans and Zeus by the ancient Greeks
- Jupiter was the king of all the gods.
- It's diameter is about 143,000 km
- You could fit about 1300 Earths into Jupiter
- It orbits 778,330,000 km from the Sun (5.2 AU) and takes 4333 Earth days or almost 12 Earth years to travel once around the Sun.
- Jupiter is made up of 75% hydrogen and 25% helium, with traces of other elements.
- It probably has a rocky core with most of the planet being liquid metallic hydrogen. The outer layer is mainly gaseous hydrogen and helium which form clouds.
- Jupiter's day is only about ten hours and this quick rotation has the effect of producing very strong winds of more than 600 km/h. This draws the clouds into belts which wrap around the planet.
- Jupiter's fast rotation also flattens Jupiter so that its equatorial diameter is larger than its diameter across the poles.
- Jupiter has a "red spot" which was first seen by Giovanni Cassini in the 17th century. The "red spot" is a storm that is big enough to fit two or three Earths.
- It has a very strong magnetic field.
- Jupiter has rings like Saturn, but they are smaller and very faint. They were an unexpected discovery of the Voyager 1 probe.
- Jupiter has 63 moons. The four largest are Io, Europa, Callisto and Ganymede and can be seen easily in a small telescope.
- Of the four largest moons, Io is the closest to Jupiter. It is continually stretched and pulled by Jupiter and the three other moons. This is called tidal heating and makes Io the most geologically active place in the solar system. There are no craters visible because the surface is being continually covered by erupting volcanoes and geysers
- The interaction of Io through Jupiter's intense magnetic field even causes an electric current to flow. This provides additional heating for Io and

strips some material from the moon creating a very powerful radiation belt around Jupiter.

- Europa is the second large moon from Jupiter and is composed mainly of rock. However, there is a layer of ice that coats the surface. Underneath the ice, there may be deep oceans of liquid water. This may be one of the few spots in the solar system where life as we know it could be possible
- Europa has a very thin atmosphere of mainly oxygen.
- Ganymede is the largest moon in the solar system and is larger than Mercury and Pluto. It also has a very thin atmosphere of mainly oxygen.
- Callisto is only a little smaller than Mercury. Its surface is the oldest in the solar system. It has had almost no geologic activity. This has preserved the surface for over 4 billion years.
- Callisto has a very thin atmosphere of carbon dioxide.