

JUPITER

- Jupiter is the fifth planet from the sun.
- Jupiter's temperature is -140 degrees Celsius.
- Jupiter is made up almost entirely of hydrogen and helium.
- Jupiter has been heavily studied with rovers and flybys.
- You could put over 1300 earths inside Jupiter; 11 earths plus could fit across Jupiter's diameter (if earth looked to be the size of a quarter, Jupiter would look to be the size of a large beach ball; Jupiter has 2.5 times the mass of all the other planets in the solar system.



1.)

• If Jupiter was 70 times more massive (three to four times its current diameter), it would begin fusion of hydrogen at its core.

• Oddities about its moons:

- Ganymede, the largest, is bigger than Mercury and almost as large as Mars (this is half the size of the earth). It has a molten iron core and is made up of rocky ice.
- Europa is a giant ball of ice with ice bergs sticking up on its surface.
- Io is the only place in the solar system other than earth that has active volcanoes. Additionally, due to its orbital position, it is constantly being pulled and tugged by its neighbors. This heats the moon and generates lava flows. Eleven billion tons of lava flow per year on its surface. Also, there's a "flux tube" between Io and Jupiter that generates 5,000,000 amps of current flow.
- Callisto has frozen ice on it. When Jupiter gets close to the sun, the ice melts and giant avalanches are produced.

3.)

- One year on Jupiter takes 12 earth years.
- The fastest spinning planet in the solar system, it takes Jupiter only 10 hours to rotate once about its axis. Its spin makes it oblate (football-like) at its equator.
- First observed by telescope in the 17 century, Jupiter plays host to the largest storm in the solar system that appears as a giant red spot on its surface; its size is that of three earths.
- The atmospheric pressure on Jupiter is great enough compress the gasses making up its structure into liquid state; it would be great enough to crush a space ship.
- Jupiter's magnetic field is the strongest in the solar system at 14 times that of earth's.
- Jupiter has at least 67 moons with the four largest being observed by Galileo (these are called "the Galilean moons").

2.)