



Read Page 6 & 7 From "Out of This World" Book

Answer questions on page 6

Jupiter 142000 km  
Mercury 4880 km

$$\begin{array}{r} \text{Big} \\ \hline \text{Small} \end{array} \frac{142000}{4880} \text{ km}$$

29.

29 times  
large

Planets are made of either rock or gases.

Inner planets (Mercury, Venus, Earth, Mars) made of rock

Outer Planets (Jupiter, Saturn, Uranus, Neptune) made of gas

- ALL planets except Mercury have atmosphere

Atmosphere is the thin layer of gases around a planet. The gases are not the same for each planet. For Protection

**Earth** has an atmosphere that is about **3/4 nitrogen**, **1/4 oxygen**, and trace amounts of carbon dioxide and other gases

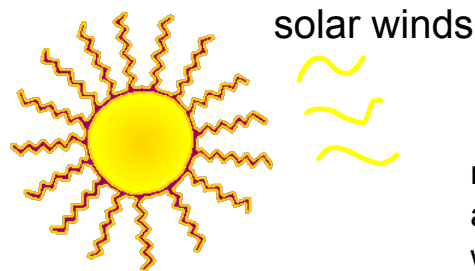
The Moon has no atmosphere

## What is in the Solar System?

**Sun** - is the center of the solar system

- Earth's main source of heat and energy
- All other things reflect the sun's light
- Closest star to Earth

**Comets:** One of the most spectacular things to see in the night sky. The center is a chunk of ice, gas and dust. Usually a few kilometers in diameter. Comets are small compared to stars and planets. They travel far beyond the planets, at the edge of the solar system. When a comet comes close to the sun, the sun's heat causes the gas to start to evaporate from its surface, As the huge cloud of dust and gas starts to grow around it, and the tail of dust starts to spread away from it, Sunlight reflects off the dust and gas particles, making the comet shine. Bright comets visible the naked eye appear about once every 10 - 20 years (Haley's Comet)



melting of gas, dust blown away from sun and by solar winds forming a tail

\*Orbit the sun but takes a very long time to do so

**Meteoroids:**

\*Are irregular shaped pieces of rock zipping around space. Broken off pieces of a comet.

\* Meteoroids that glow are called Meteors. This happens when a meteoroid falls into the earth's atmosphere, it will bangs ups against particles and this friction will make it heat up and glow leaving a tail of burning gas behind them.

\*Orbit the sun but takes a shorter time to do so when compared to a Comet



Meteor Hits Russia Feb 15, 2013 - Event Archive

**Definition**

Orbit - is a path an object follows

During a meteor shower, you may see several streaks of light every minute. The brightest meteors are caused by meteoroids that are only a few centimeters in diameters. The smallest meteoroids are just specks of dusk or pebble-sized. Pieces of rock left behind by a passing comet.



id Meteor Shower 2013



Comet Swift-Tuttle  
Produces gas and dust when it approaches the Sun  
iseid meteor shower in 2015