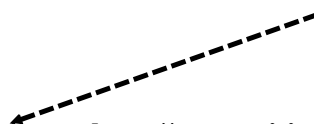
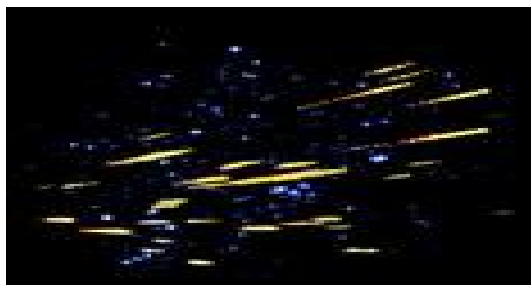
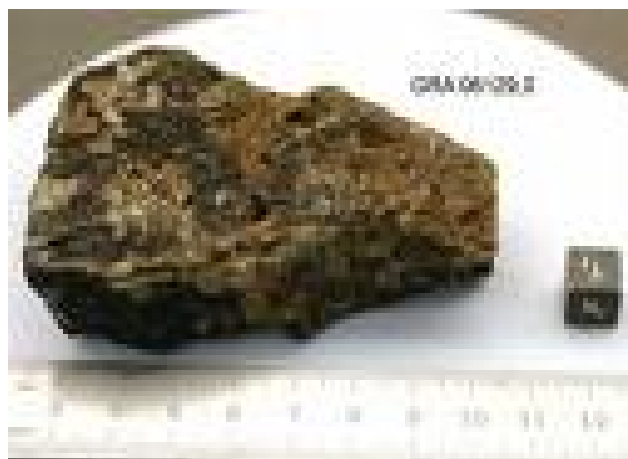


A bright streak of light across the sky is a meteor.



<http://ca.geocities.com/spacephysicsisur/>

If the meteor hits the earth before vaporizing it is called a meteorite.

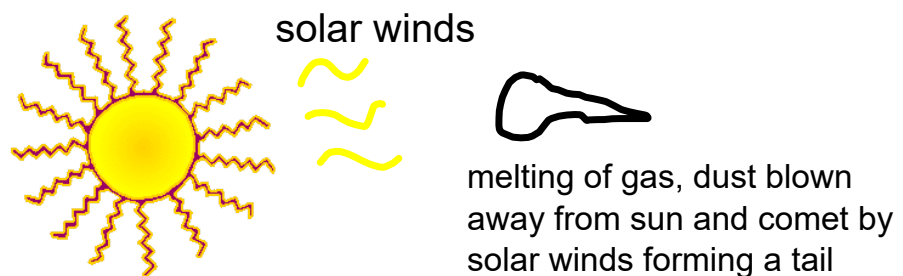




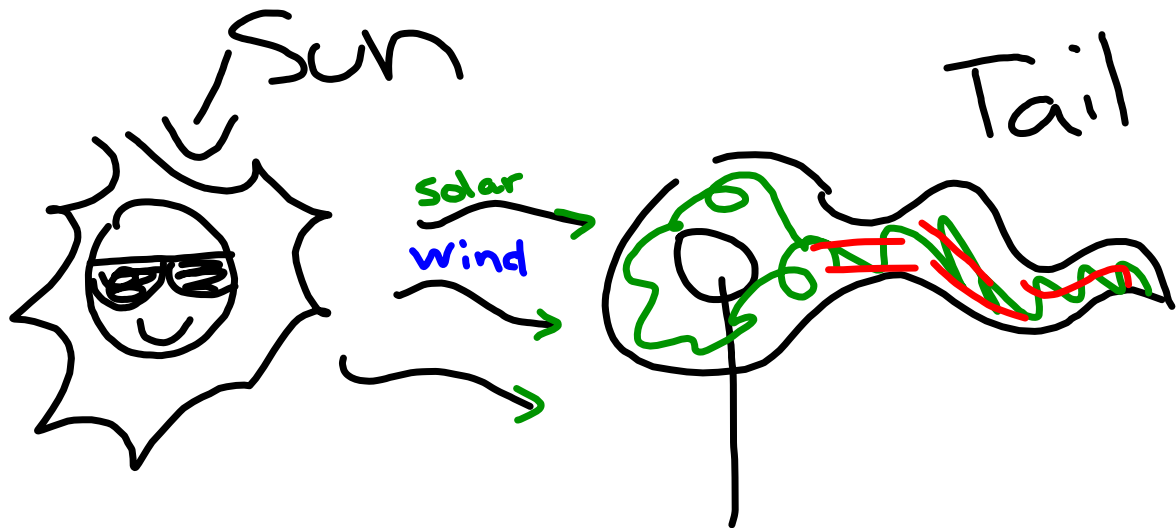
Comet is a chunk of frozen matter (Ice & Dust) that travels in a very long orbit around the sun.

A galaxy is a huge collection of gas, dust, and hundreds of planets billions of stars and moons.

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 a tail of dust starts to spread away from it, Sunlight reflects off the dust and gas particles, making te comet shine. Bright comets visible the naked eye appear about once every 10 - 20 years (Haley's Comet)



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



Comets' tails are caused when the comets get close to the Sun. The outer layers of ice turn into gases that are pushed away from the Sun by the solar winds. These gases glow brightly.



Changing Ideas About
The Universe
test probably



Many people like to fantasize about what exist in rest of the universe.

Ancient Ideas:

- People believed that everything orbit around the earth.

Earth-Centred Universe

Improvements Over Time:

- Five hundred years ago scientist started questioning the Earth-centred universe.

Reasons:

- 1) They now had telescopes
- 2) Satellites
- 3) Space explorations

Scientist were beginning to learn more about nature



- **Galileo** was the first scientist to use the telescope to make discoveries about our solar system. He was the **first scientist to say that the planets traveled around the sun, which is known as the Sun-centred solar system.**

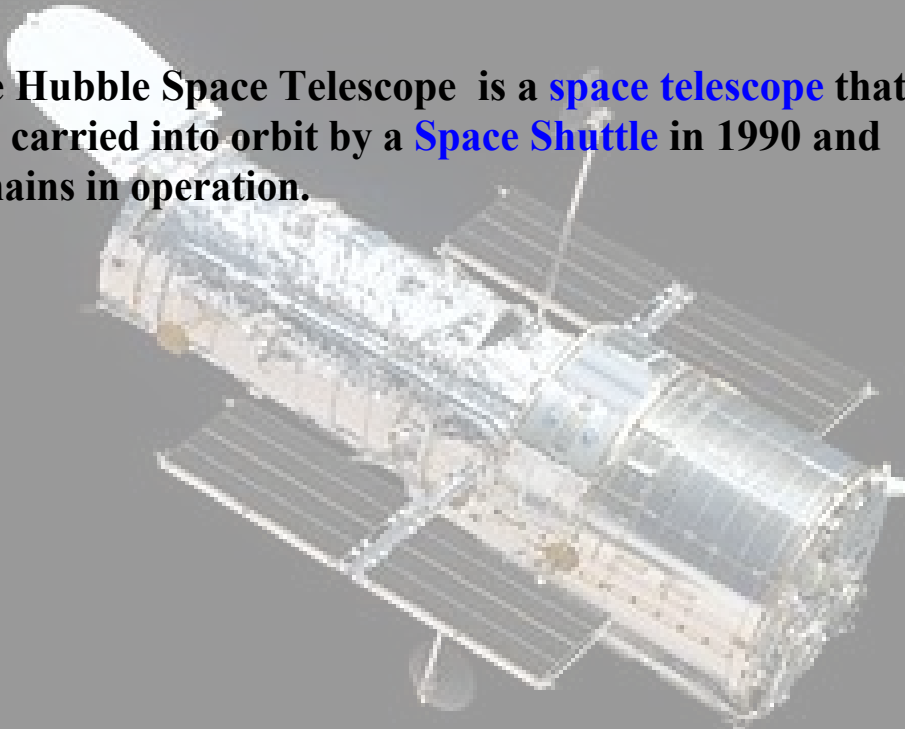


Today's Idea

- Planets orbit the sun
- Stars also move
- Vast region beyond the Milky Way Galaxy
- Countless number of Galaxies

WHEN_WE_LEFT_EARTH_The_NASA_Missions_A_Home_in_Space
(2:50-3:00)

The Hubble Space Telescope is a **space telescope** that was carried into orbit by a **Space Shuttle** in 1990 and remains in operation.



Hubble's orbit outside the distortion of **Earth's atmosphere** allows it to take extremely sharp images with almost no **background** light. Hubble's **Ultra-Deep Field** image, for instance, is the most detailed **visible-light** image ever made of the universe's most distant objects.

Fun Note:

The light that we see from the star Alpha Centauri tonight left the star 4.3 years ago. So the light takes 4.3 years to reach earth.



The Sun: An Important Star

the amazing sun
(6:50)



Bubble Guppies Sun, Beautiful Sun also has a reprise - YouTube

- closest star
- brightest object in the sky
- The sun has been producing energy for about 5 billion years already, and they predict that it will produce energy for another 5 billion years before it runs out of fuel.

