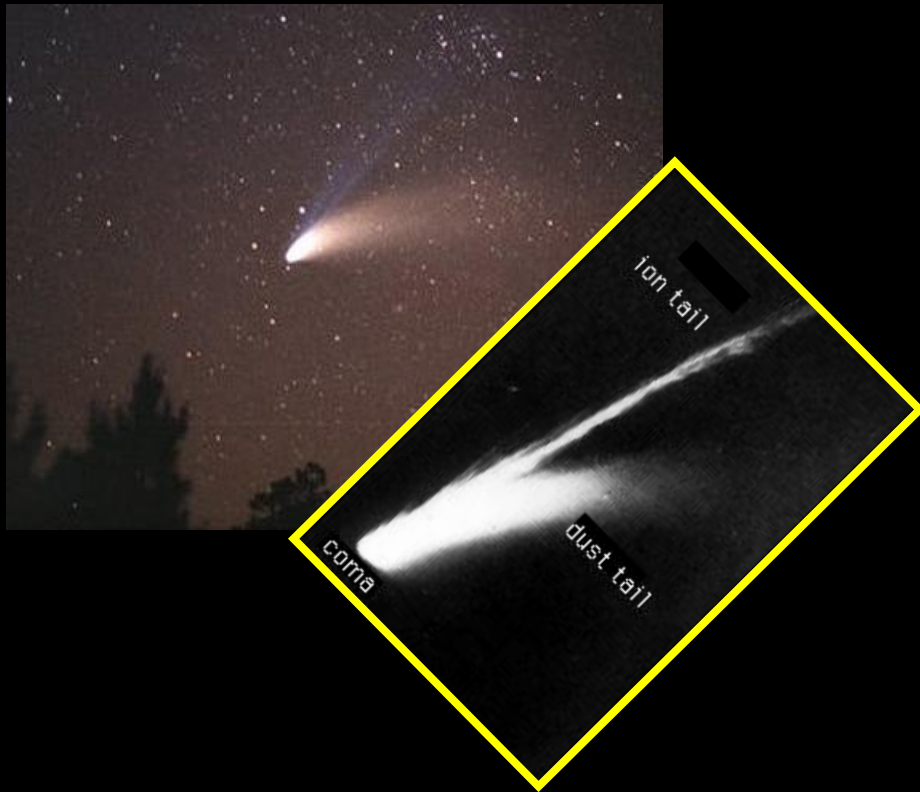


What's That Up In The Sky???



Comets, Meteors and Asteroids

Comets.....Dirty Balls of Ice



They look like a star with a ghostly white tail.

The term "comet" derives from the Greek *aster kometes*, which means "long-haired star" ---a reference to the tail.

Video:

<http://www.history.com/shows/the-universe/videos/the-universe-comets?m=5189719baf036&s=All&f=1&free=false>

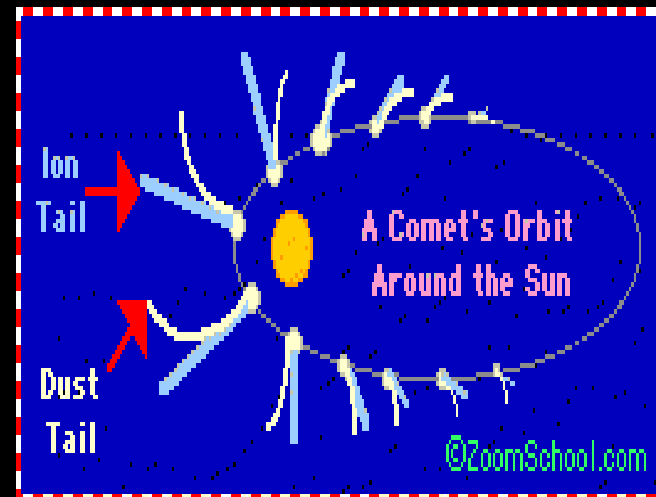
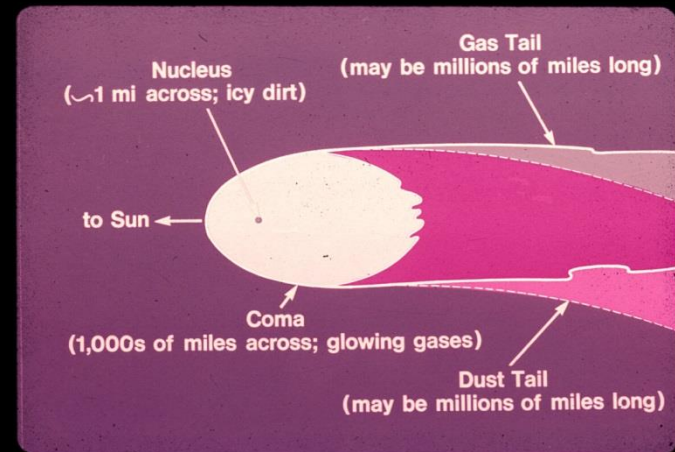
Comets.....Dirty Balls of Ice

They can be seen by us only when they pass by the sun and the sun's heat melts them.

The comet's tail is made of material from the comet; gas from the ices and dust that is mixed in with the ice. They escape as the comet melts.

The tail always points away from the sun due to the solar winds (movement of heat away from sun)

http://www.windows.ucar.edu/tour/link=/comets/comet_model_interactive.html



Asteroids.....Rockin' Around

Asteroids are **LARGE** chunks of rock and metal that orbit the sun.

They range from just over $\frac{1}{2}$ a mile (1km) to a few hundred miles in diameter (diameter = how wide across)

Video:

<http://www.history.com/shows/the-universe/videos/seeing-asteroids-meteors?m=5189719baf036&s=All&f=1&free=false>

Mathilde



59 kilometers

Eros



Gaspra



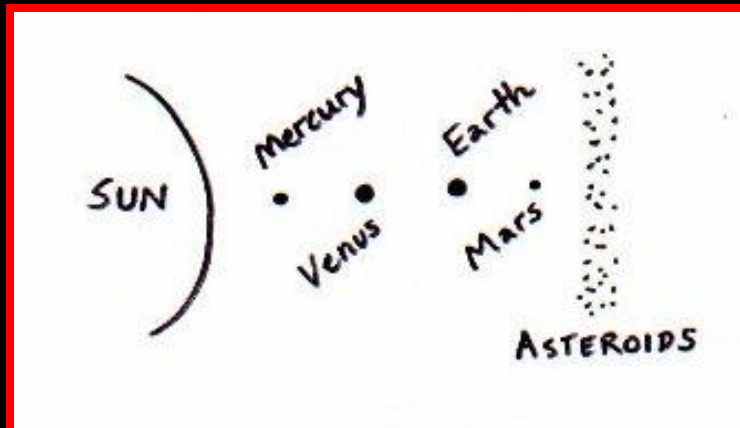
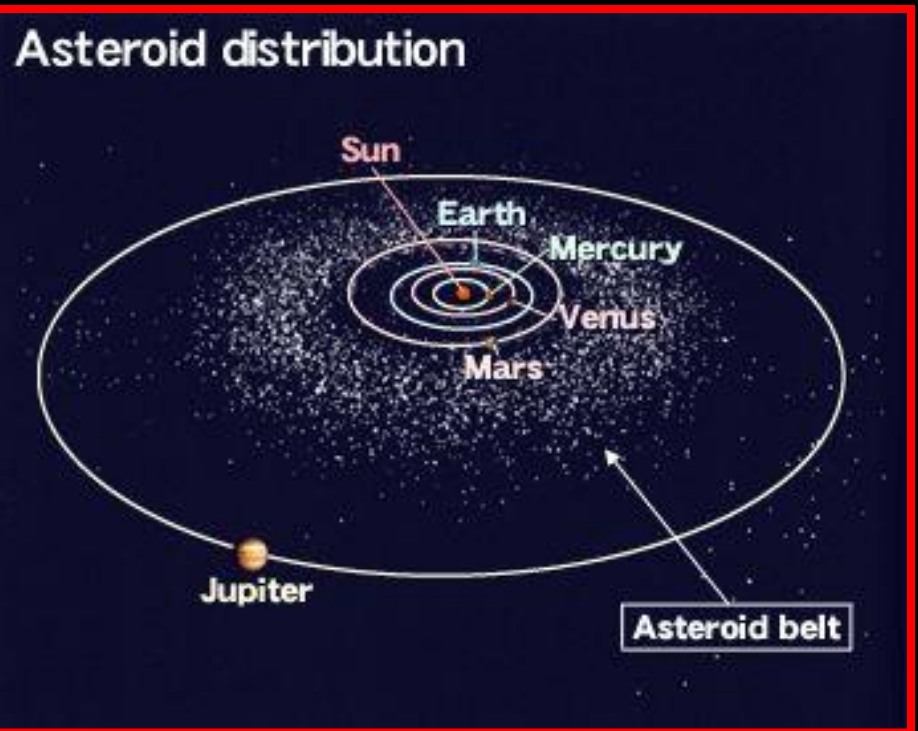
Ida



Asteroids.....Rockin' Around

Most asteroids travel in the wide gap between the inner planets and outer planets (between Mars and Jupiter).

But a few travel in paths across Mar's orbit and some even cross in Earth's orbit.



Meteors...Shooting Stars or Space Garbage

Meteoroids are in space.
Formed from asteroids,
comets, moons, & planets



Meteors are also called
shooting stars as they burn
up in the atmosphere

Meteorites are metallic rocks
on Earth's surface



Meteors...Shooting Stars or Space Garbage

Meteors are falling all the time; on a clear, dark night you may see one. During annual meteor storms, you may see as many as 100 per hour. Entering the Earth's atmosphere so fast creates a lot of friction. The friction causes them to heat up and give off light. Most meteors are only as big as a grain of sand. Most burn up while entering Earth's Atmosphere

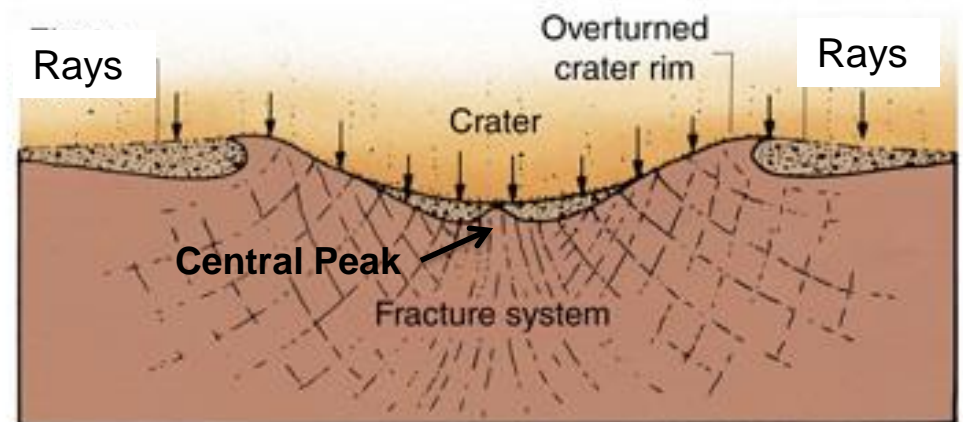
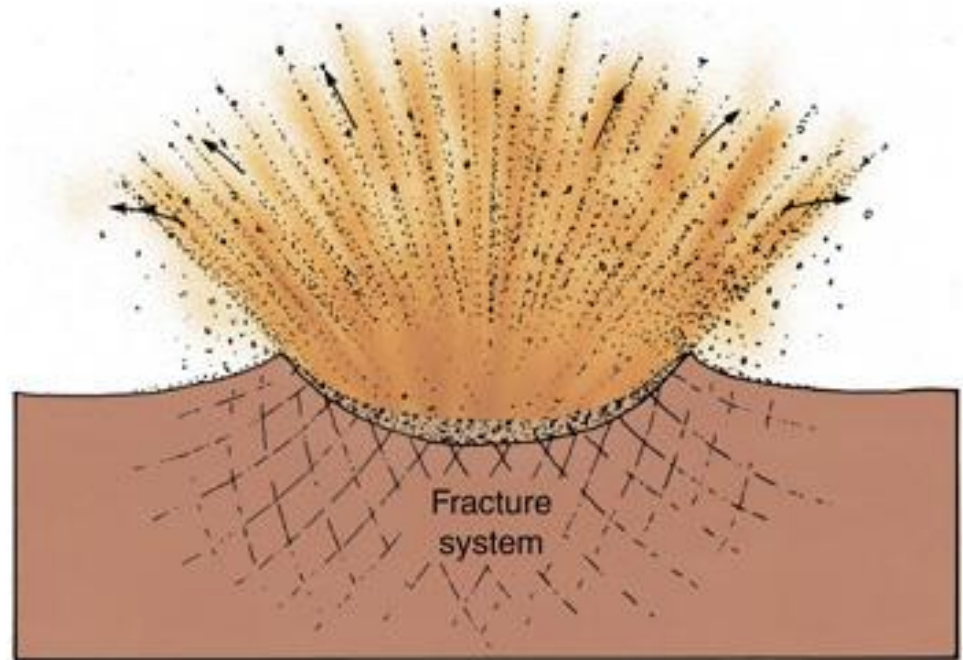
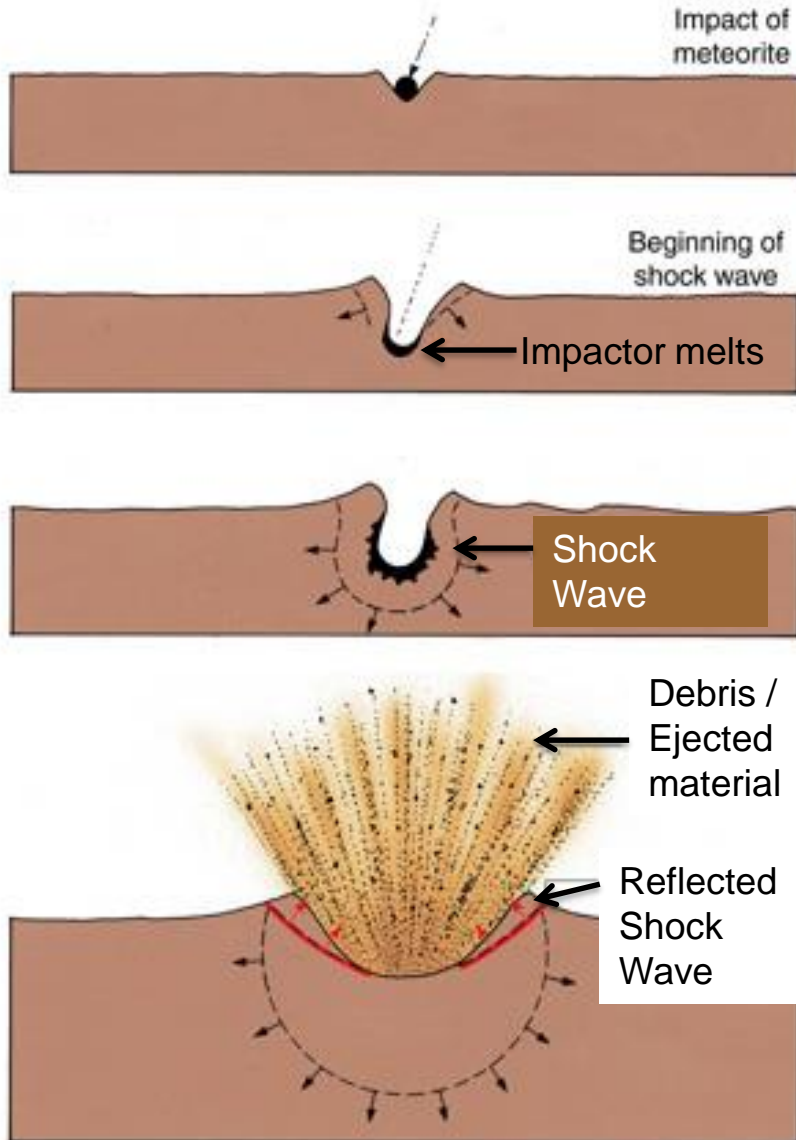


Meteors...Shooting Stars or Space Garbage

Some do strike Earth's
surface and make
craters!



Crater Formation



Why should we learn about these objects?

- What do you think?
- Video: <http://www.history.com/shows/the-universe/videos/fire-in-the-sky?m=5189719baf036&s=All&f=1&free=false>