Objects in the Solar System

Standard 8-4.1

Summarize the characteristics & movements of objects in the solar system.

Planets FS: 8-4.1

Summarize the characteristics & movements of planets.

Solar System

- What are the characteristics of objects in the solar system based on?
  - surface features
  - atmosphere (if there is one)
  - movement: orbit/revolution & possibly rotation

Planets In Order From the Sun

- Inner: Closest To Sun
- Terrestrial: “Earth-like,” small, rocky

- Outer: Farthest From Sun
- Gas giants: made of gas, big

My Very Earthly Mother

Just Served Us Noodles

Mercury Venus Earth Mars

Jupiter Saturn Uranus Neptur

Planets: Smallest to Largest

- Mercury
- Mars
- Venus
- Earth
- Neptune
- Uranus
- Saturn
- Jupiter

Planets

Terrestrial: Inner

- Mercury-smallest, extreme heat & cold (thin atmosphere)
- Venus- hottest (thick atmosphere), “Earth’s twin” (size), retrograde rotation (East to West)
- Earth- life, H2O
- Mars- red, dust storms

Gas Giants: Outer

- Jupiter- Great Red Spot (atmospheric storm), biggest
- Saturn- distinct rings
- Uranus-bluish (methane), rotates on its side
- Neptune- Great Dark Spot (atmospheric storm)

Moons

- What are the characteristics of moons?

- not all planets have moons
- moons are studied with the planet they orbit
- most are rocky bodies covered with craters, but some have unique characteristics
- movement is based on revolution around their planets

Asteroids FS: 8-4.1

Summarize the characteristics & movements of asteroids.

Asteroids

- What are the characteristics of asteroids?

- rocky bodies that vary in size & shape and orbit in a region in the solar system known as the asteroid belt b/t Mars & Jupiter
- movement: based on revolution around the Sun
- some outside of the asteroid belt have orbits that cross Earth's orbit & scientists monitor their position

Comets FS: 8-4.1

Summarize the characteristics & movements of comets.

Comets

- What are the characteristics of comets?

- have a main body (head) made of ices of water, methane, ammonia & dust AND
- tail that emerges as the comet gets closer to the Sun during its orbit
- tail always points away from the Sun
- comets have a unique, long, narrow elliptical orbit

Meteoroids FS: 8-4.1

Summarize the characteristics & movements of meteoroids.

Meteoroids

- What are the characteristics of meteoroids?

- chunks of rock that move within the solar system
- location & movement result in different terms:
- meteoroid: out in space
- meteor: when the chunk of rock burns up in a planet's atmosphere
- meteorite: when the chunk of rock strikes the surface of a planet of a moon

3 Meteoroids: terms based on location/movement

- meteoroids: chunks of rock that move in space
- meteors: burn up in a planet's atmosphere (light)
- meteorite: rock hits planet/moon's surface (heavy

2 Comets: elliptical orbit

- head (main body) : made of icy water, methane, ammonia, & dust
- tail: emerges by the Sun & points away from Sun

1 Asteroids: scientists monitor: cross Earth's orbit

- Various size & shaped rocky bodies that orbit the Sun mainly in the asteroid belt b/t Mars & Jupiter