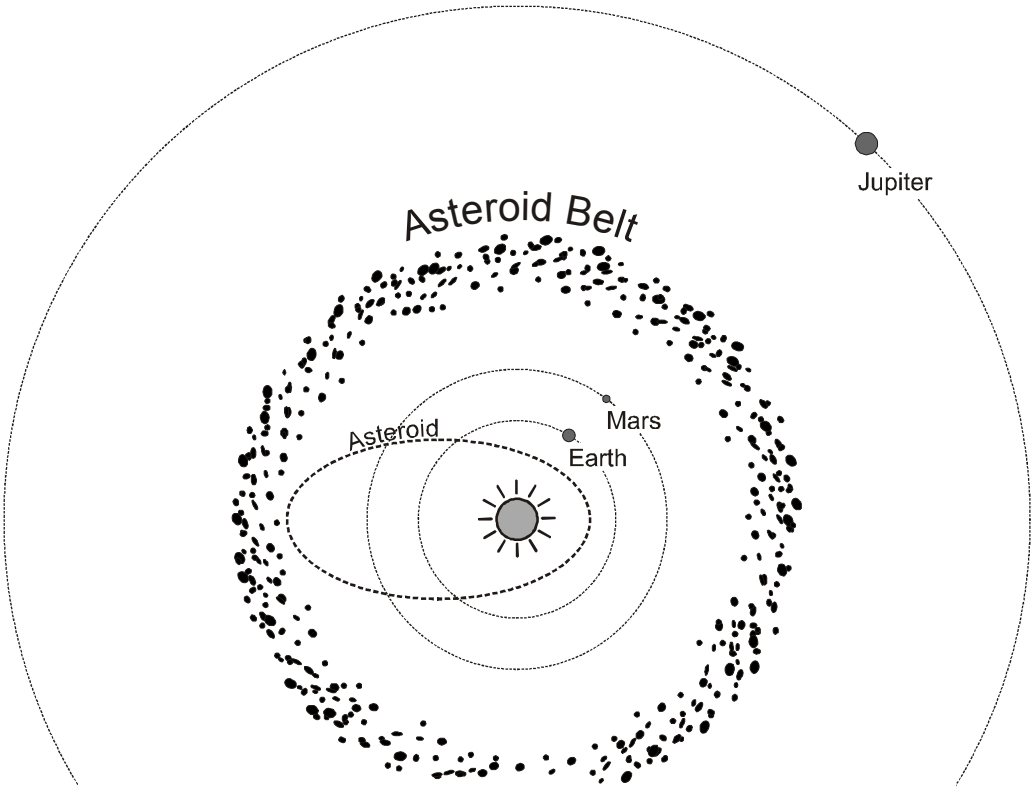
Asteroids

Small, irregularly shaped, rocky bodies that lie predomantly in the inner solar system are called asteroids or minor planetes. The largest known asteroid is **Ceres** with a diameter of about 940 km but most asteroids (of which about 5000 are known) are less than 100 km across.

The Asteroid belt

A high percentage of all asteroids orbit the Sun in the asteroid belt. It's radius is about 2 to 3.5 AU (Astronomical Units).



The total amount of mass in the astreroid belt is around 15 per cent of the Moon's mass. Asteroids are remnants of the solar nebular that failed to form a planet because of the gravitational pull betwenn Sun and Jupiter.

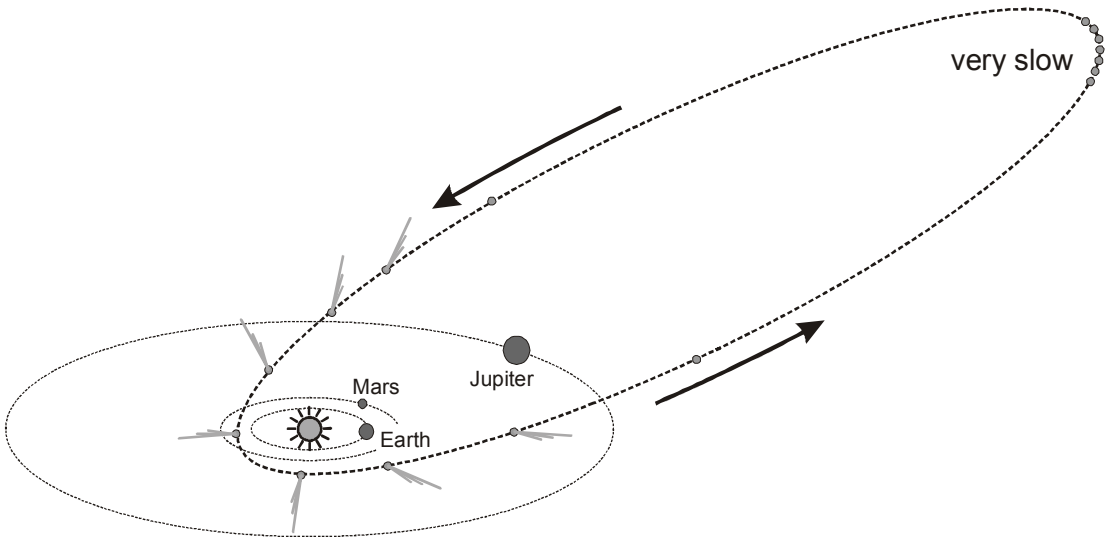
There are also asteroids between Jupiter and Saturn.

There are asteroids on elelliptical paths partly within Earth's orbit, partly beyond Earth's orbit. Those asteroids could cross Earth's orbit and one time could collide with the Earth. It is very unlikely.

Comets

Comets are rocky bodies and contain larnge amount of ice, like “dirty snowballs”. They lie in the *Kuiper belt* (30 AU to 100 AU) or in *Oorts cloud* (30’000 AU to 100’000 AU), far beyond Neptun’s orbit. There are short-period comets and long-period comets. Short-period comets have orbital periods less than 200 years.

Comets move in eliptical orbits around the Sun. Far away from the Sun they move very slowly, there they stay many years. Around the Sun comets move with high speed, it takes only few weeks to go around the Sun.



At around the orbit of Jupiter the ice start to sublimate: changing from the solid strait to gas. The sunrays push the gas out into space, the gas forms the coma (tail) of the comet. The Coma can grow more than 100’000 km across.

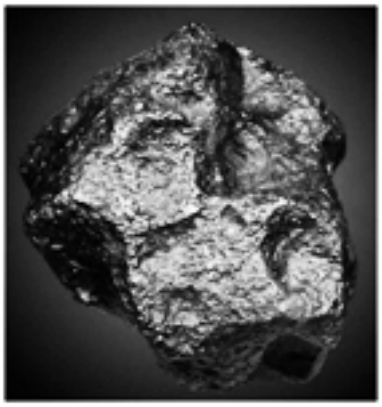
Famous comets:

Comet Halley	first seen in 1531, then 1607 and 1682, 1758, 1834, 1910 and 1986.
Comet Hail–Bopp	was found in 1995, is a long-period comet.

Meteors (shooting stars)

Meteors are small interplanetary debris which burns up in the atmosphere, producing streaks of light. They usually don’t reach the surface of the Earth.

Meteorites



Are big meteors that reach the surface of the Earth. A big meteorite can produce a big crater, can cause big damages. The extinction of the dinosaur is said to be caused by a big meteorite 60 Million years ago.

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