Other Celestial Objects

Asteroids

Asteroids are small rocky and metallic bodies orbiting the Sun within the inner Solar System (as far out as Jupiter's orbit). There are millions of asteroids, the majority of which orbit in the **asteroid belt** between the orbits of Mars and Jupiter.

Kuiper Belt Objects (KBOs)

The Kuiper belt is a region of the Solar System beyond the orbit of Neptune. It extends nearly 50 times farther from the Sun than Earth's orbit.

Like the asteroid belt, it consists mainly of small bodies, remnants from the Solar System's formation. However, unlike the asteroid belt, the objects in the Kuiper belt are mostly made of frozen methane, ammonia, and water.

Comets

A comet is an icy small Solar System body that, when close enough to the Sun, displays a visible coma (a thin, fuzzy atmosphere) and sometimes a tail. They are often popularly described as "dirty snowballs."

The nucleus of a comet is composed of rock, dust, and ice. It ranges in size from about 100 meters to more than 40 kilometers.

The coma and tail are the result of the icy portions of the comet melting as it approaches the Sun. They are often visible due to the Sun's light illuminating dust particles within them.

Meteoroids

A meteoroid is a sand to boulder sized particle of debris in the Solar System. The visible path of a meteoroid that enters Earth's atmosphere is called a **meteor**. If a meteoroid reaches the ground and survives impact, then it is called a **meteorite**.

Around 15 000 metric tons of meteoroids enter Earth's atmosphere each year.

Galaxies

A galaxy is a massive, gravitationally bound system that consists of large amounts of stars (from as few as ten million, to as many as a hundred trillion).

Galaxies have historically been categorized according to shape: elliptical, spiral, or irregular.

There are probably more than 170 billion galaxies in the observable universe.

SC10F Mr. Smith