

All About Space Rocks

- Space rocks – the meteoroids and large asteroids - are ‘leftovers’ from the formation of our solar system around 4.6 billion years ago and hold important clues about the composition and processes of our early solar system.
- Meteoroids are rocks in space, often no bigger than a grain of sand, orbiting around the Sun.
- When a meteoroid moves through Earth’s atmosphere, it creates a brilliant streak of light — a meteor. Meteors are called shooting stars, but they are not really stars.
- A meteor shower occurs when Earth passes through the debris left behind by the passage of a comet.
- Asteroids are large meteoroids. Most exist in a belt between the orbits of Mars and Jupiter, but sometimes they move out of this belt, and occasionally hit a planet.
- When a rock from space is found on Earth, it is called a meteorite.
- When a comet, meteorite, or asteroid strikes a planet, it makes a big, bowl-shaped hole on the planet surface – an impact crater.
- NASA's Near Earth Object Program searches for, and tracks, objects like asteroids that may collide with Earth. This information is helping scientists and engineers plan how to protect our planet from an impact.
- Comets are sometimes called ‘dirty snowballs’ or ‘icy dirt balls’.
- Comets can be found in the outer reaches of our Solar System. Some comets, like Hale-Bopp, have been bumped into orbits that we can observe from Earth periodically.
- NASA has several missions that have – or will be - investigating space rocks. These include Dawn, New Horizons, and Near Earth Asteroid Rendezvous.