**Comets, Meteors and Asteroids**

Comets, meteors and asteroids come from space. **Comets** appear as shining lights and cannot be seen without a telescope. **Meteors** look like thin streaks of light in the night sky. They can be seen by the naked eye. **Asteroids** are chunks of rock that circle the Sun. They measure about 3 miles across.

A comet in the outer parts of the Solar System is too small to be seen from Earth. It looks like a large, dirty snowball. It has an icy core, covered by a layer of black dust. The nucleus is mainly water and gases, frozen and mixed together with bits of rock and metal.

The ice melts when the comet gets closer to the Sun. It changes into a gas. Dust particles spread out around the nucleus in a cloud called a **coma**. The Sun causes them to glow. The coma of an average comet is sixty thousand miles across, but very thin. Radiation and the solar wind drive the gases of the coma away. They form a straight tail. The tail can grow to ninety million miles long.

The **orbits** of most comets are oval-shaped. Short-period comets take less than two hundred years to travel around the sun. **Halley's Comet** returns every 76 years. The comet with the shortest period is Encke's comet. It orbits the Sun every 3.3 years. Most comets get brighter when they get closer to the Sun. Bright comets are visible in the sky only once or twice in a century, but for a long period of time.

**Meteors** flash in the sky every night. They are sometimes called falling or shooting stars. Meteors begin as meteoroids pushing through the Earth's atmosphere. Friction made by rubbing against air particles makes them look red hot. Then they are called meteors. They last for only a few seconds. Meteors come much closer to the Earth than comets.

Earth might pass through an old comet orbit and bump into particles from its nucleus. This event is called a **meteor shower**. Perhaps more than a dozen meteors might be visible in an hour. If many more meteors are together, this event is called a **meteor storm**.

**Asteroids** are the largest of the space rocks. Most of them go around the Sun between the orbits of **Mars** and **Jupiter**. The region they are located is called the **Asteroid Zone**. There are more than three thousand known asteroids. Most are only a few miles across. **Ceres** is the largest. It is six hundred miles across.

Sometimes asteroids spin out of their zone to follow different orbits. More than twenty-five asteroids share the same orbit as Jupiter. They are called **Trojan asteroids. Apollo asteroids** come across Earth's orbit and approach the Sun like a comet.

In summary, comets, meteors, and asteroids are three types of space travelers which can be seen by humans. Comets are shiny patches in the sky from time to time. Asteroids are chunks of rock which circle the Sun. Both can be viewed only by using a telescope. Meteors are thin streaks of light every night. These can be seen without a telescope.

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1) Which of the following is an asteroid?

**A:** A shooting star

**B:** A big chunk of space rock

**C:** A small comet

**D:** A small meteor

2) Which of the following has an icy core?

**A:** An asteroid

**B:** The Earth

**C:** The Moon

**D:** A comet

3) Which of the following statements is true?

**A:** Asteroids can be seen by the human eye.

**B:** A coma is the trail a meteor leaves behind.

**C:** The orbits of most comets are oval-shaped.

**D:** Meteors appear only every few months.

4) How often does Halley's Comet return?

**A:** 76 years

**B:** 25 years

**C:** 50 years

**D:** 2 years

5) Which of the following statements is not true?

**A:** Most comets get brighter as they get near the Sun.

**B:** The comet with the shortest period is Encke's comet.

**C:** Asteroids go around the Sun between the orbits of Mars and Jupiter.

**D:** A meteor shower happens when meteors hit Earth.

6) Which of the following best describes a Trojan asteroid?

**A:** Very small asteroids.

**B:** Asteroids which share Jupiter's orbit.

**C:** Asteroids which share Earth's orbit.

**D:** The largest asteroids.

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