

What Is a Comet?



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

A comet is an icy object made of dust and ice that orbits the Sun. Comets are leftovers from the time the solar system formed, 4.6 billion years ago.

Most comets are far out in the solar system. Some are in the Kuiper Belt, a wide disk beyond Neptune, and take less than 200 years to go around the Sun. Others are in the Oort Cloud, at the outer edge of the solar system, and take much longer.

The heart of a comet is a frozen core called the nucleus, a ball of dust and ice usually less than 10 miles across. Close to the Sun, the comet heats up and its ice turns to gas. The gas and dust make a huge, fuzzy cloud around the nucleus, called the coma.

Sunlight and particles from the Sun push the dust and gas into a bright tail millions of miles long. A comet has two tails, one of dust and one of gas, and both point away from the Sun.

1. What is a comet made of?

2. What is the coma?

3. Why does a comet grow a coma when it comes close to the Sun?

4. A comet is near the Sun. Which way do its tails point? Why?

Answer key

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1. What is a comet made of?
Dust and ice.
2. What is the coma?
A huge, fuzzy cloud of gas and dust around the nucleus.
3. Why does a comet grow a coma when it comes close to the Sun?
Because it heats up and its ice turns to gas, and the gas and dust make a cloud around the nucleus.
4. A comet is near the Sun. Which way do its tails point? Why?
Sample answer: away from the Sun, because sunlight and particles from the Sun push the dust and gas away from it.