

Fun Comet Facts



Teachers Information:

Listed below are some interesting facts about comets. Feel free to share with your students to pique their interest as you introduce comets. Below the list of facts, you will find an example activity to conduct with your students. After the activity, display each student's comet around the classroom or have the student present their work to each other in a small group setting.

Comet Facts:

- Sometimes comets are referred to as "dirty snowballs" or "cosmic snowballs" because they are composed mostly of ice, rock, gas, and dust.
- Comets orbit the Sun in elliptical paths, just like planets do.
- A comet has four components: a nucleus, a coma, a tail, and an ion tail or plasma tail.
- The nucleus of a comet contains the vast majority of its total mass.
- The most famous comet is Halley's Comet. It has been observed since at least 240 B.C. It was named after the British astronomer Edmond Halley.
- Scientists have so far discovered over 3,000 comets.
- A great comet is one which is bright enough to be visible from earth without the need for a telescope. Approximately one great comet happens every 10 years.
- Most comets are no larger than a few kilometers across. (2.5 kms is equal to about 1.5 miles) For us that seems big but in our solar system that's rather small.
- The closest point in a comet's orbit to the Sun is called "perihelion". The most distant point is called "aphelion".

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- A meteor shower happens when Earth passes through the path of a comet. When this happens, the bits of comet debris, most no larger than a grain of sand, create streaks of light in the night's sky as they burn up in Earth's atmosphere.
- After many years of circling the sun, the comet will eventually break apart from being so small and moving at such a great speed. They travel between 26 miles per second and 298 miles per second.
- Throughout history, comets have been seen as harbingers of doom.
- The dust in a comet's tail reflects light from the Sun, which is how they appear so bright in the sky.
- Comets are being produced by two regions of the outer Solar System: The Kuiper Belt and The Oort Cloud. The Oort Cloud is further out than the Kuiper Belt.
- Most comets are too small and too far away to be detected from Earth.
- Comets that orbit in fewer than 200 years are referred to as *short term comets*. Comets that orbit more than 200 years are considered *long term comets*.

Example Activity:

Have your students use the comet image on the following page to highlight 3 or 4 of what they feel are the most fascinating comet facts from the list above. Encourage them to use their creative skills during this activity to incorporate why they feel each fact is so interesting. Lastly, have the students use unique art supplies (foil, glitter, tissue paper, etc.) to make their comet beautiful, just like all comets are.



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