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Comets

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Comets

About space4alleducation

We are a small dedicated team who love space and wishes to share their love with anyone who wants to learn about space/astrometry and rockets and more.

I am Andy the owner and lead tutor for space4education.com a small company dedicated to improving the education for all learners who want to be involved in the developed of space.

Over the last 7 years we have been developing a program aimed helping and supporting leaners from 10 years and younger.

The Booklet that you are holding is the beginning of that journey, as it the beginning of your journey as you begin to explore the various regions of space.

This booklets is part of series booklets that will give you various information about space.

This booklet was created by

Andy (Content creator) and Steve (I.T Management).

Please check out our website

ww.space4alleducation.com

Comets

As a comet gets close to the Sun, it loses some of its mass due to the sublimation. If a comet goes around enough times, it will eventually break up. Comets also break up if they come TOO close to the Sun or another planet in their orbits.

Comets are usually made of frozen water and super cold methane, ammonia and carbon dioxide ices. Those are mixed with rock, dust, and other metallic bits of solar system debris.
Comets have two tails: a dust tail (which you can see with the naked eye) and a plasma tail, which is easily photographed but difficult to see with your eyes.

Comet orbits are usually elliptical.
Many comets formed in the Oort cloud and Kuiper Belts, two of the outermost regions of the solar system.
Comets are not spaceships or alien bases. They are fascinating bits of solar system material that date back to the formation of the Sun and planets.

Comets

Hi I'm am Comet, I come in different colours and sizes, depending on what I'm made of depending on colour I am, and how bright I shine

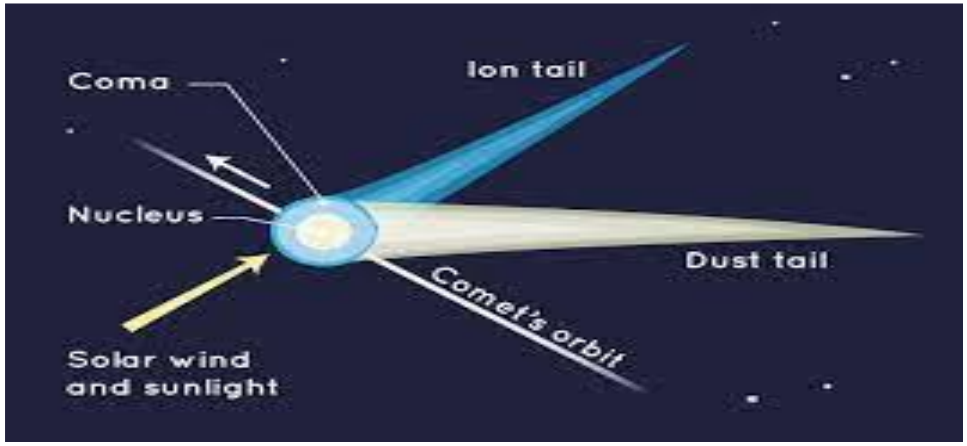
Comets

What Is A Comet?

A comet is a very small solar system body made mostly of ices mixed with smaller amounts of dust and rock. Most comets are no larger than a few kilometres across. The main body of the comet is called the nucleus, and it can contain water, methane, nitrogen and other ices.

When a comet is heated by the Sun, its ices begin to sublimate (similar to the way dry ice “fizzes” when you leave it in sunlight). The mixture of ice crystals and dust blows away from the comet nucleus in the solar wind, creating a pair of tails. The dust tail is what we normally see when we view comets from Earth.

A plasma tail also forms when molecules of gas are “excited” by interaction with the solar wind. The plasma tail is not normally seen with the naked eye, but can be imaged. Comets normally orbit the Sun, and have their origins in the Oort cloud and Kuiper Belt regions of the outer solar system.



Comets

Facts about Comets

There are many misconceptions about comets, which are simply pieces of solar system ices travelling in orbit around the Sun. Here are some fascinating and true facts about comets.

The nucleus of a comet is made of ice and can be as small as a few meters across to giant boulders a few kilometres across.

The closest point in a comet’s orbit to the Sun is called “perihelion”. The most distant point is called “aphelion”.

As a comet gets closer to the Sun, it begins to experience heat. That causes some of its ices to sublimate (similar to dry ice sizzling in sunlight). If the ice is close to the comet’s surface, it may form a small “jet” of material spewing out from the comet like a mini-geyser.

Material streams from comets and populates the comet’s orbit. If Earth (or another planet) happens to move through that stream, those particles fall to Earth as meteor showers.

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Comets

Comet Naming

Comets come in several categories. The most common are periodic and non-periodic.

In the past, comets were named for their discoverers, such as Comet Halley for Sir Edmond Halley. In modern times, comet names are governed by rules set forth by the International Astronomical Union (IAU). A comet is given an official designation, and can also be identified by the last names of up to three independent discoverers.
Here's how it works. Once a comet has been confirmed, the following naming rules are followed. First, if the comet is a periodic comet, then it is indicated with a P/ followed by the year of its discovery, a letter indicating the half-month in which it was discovered, followed by a number indicating its order of discovery. So, for example, the second periodic comet found in the first half of January, 2015 would be called P/2015 A2.

A non-periodic comet would be indicated with a C/ followed by the year of its discovery, a letter indicating the half-month in which it was discovered, followed by a number indicating its order of discovery.
If a comet is independently discovered by three people named Smith, Jones, and Petersen, it could also be called Comet Smith-Jones-Petersen, in addition to its formal designation.

Today, many comets are found through automated instrument searches, and so the formal designations are more commonly used.

Comets

Comets are cosmic snowballs of frozen gases, rock, and dust that orbit the Sun. When frozen, they are the size of a small town. When a comet's orbit brings it close to the Sun, it heats up and spews dust and gases into a giant glowing head larger than most planets. The dust and gases form a tail that stretches away from the Sun for millions of miles.

There are likely billions of comets orbiting our Sun in the Kuiper Belt and even more distant Oort Cloud.

The current number of known comets is: 3,859.

Comets

Comets

Y O A X G T F J U O K K Q P O
F W Q K I R K G P N V D C K N
A Y E B O G R F V C I D Y O N
S Q R Z K E Q O C O M E T S R
N O E A A A K U B F S W H S V
O N U C G J S X R R P J M H H
W Y E U K N M I L L I O N S T
B Y R P M G L E T G F L J K W
A M L O A N S F M A Z W C G M
L L T G Z I S V I S I Z N D R
L F S H Z H B P Z J L L M P Q
Z Y F H A E N O U X X N C Z T
A Z O Y F S U F J G C I R Z S
S E S A G N Q S P D F R W F U
F S T D V X E A G T L C D D D

Comets	Dust	Frozen
Gases	Million	Orbit
Rock	Snowball	Tail