

**WHAT'S THE DIFFERENCE BETWEEN  
ASTEROIDS,  
COMETS,  
AND METEORS?**

1  
00:00:01,760 --> 00:00:05,700  
What's the Difference Between  
Asteroids, Comets, and Meteors?

2  
00:00:09,514 --> 00:00:11,067  
We Asked a NASA Scientist.

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00:00:11,067 --> 00:00:16,320  
Well, they're all planetary objects orbiting  
the Sun. An asteroid is a small, rocky object

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00:00:16,320 --> 00:00:21,360  
and when seen in a telescope, it appears as  
a point of light. Most asteroids are found

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00:00:21,360 --> 00:00:26,480  
in a ring between the orbit of Mars and Jupiter  
called the asteroid belt. Some asteroids are round,

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00:00:26,480 --> 00:00:32,640  
some are elongated, and some even have a satellite.  
A comet also orbits the Sun, but unlike an asteroid,

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00:00:32,640 --> 00:00:37,840  
it's composed of ice and dust. So, when a comet  
gets close to the Sun, its ice and dust content

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00:00:37,840 --> 00:00:44,080  
start to vaporize. So, when seen in a telescope, a comet  
appears fuzzy and/or has a tail. So, what's a meteor?

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00:00:44,080 --> 00:00:49,951  
Well, let's start with a meteoroid. A meteoroid is  
a small piece of asteroid or a comet, typically pebble-sized,

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00:00:49,951 --> 00:00:53,440  
but could be a little smaller or a little  
larger, and often created from a collision.

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00:00:53,440 --> 00:00:58,080

When a meteoroid gets close to the Earth and enters the Earth's atmosphere, it's called a meteor.

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00:00:58,080 --> 00:01:02,560

And a meteor enters the Earth's atmosphere at a very high speed. So it burns up and produces a

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00:01:02,560 --> 00:01:07,312

streak of light called a shooting star. So, if you have seen a shooting star, you likely saw a meteor.

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00:01:07,312 --> 00:01:11,280

And if a meteor survives the burn and lands on the ground, it's called a meteorite.

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00:01:11,280 --> 00:01:16,240

So, what's the difference between asteroids, comets, and meteors? Well, asteroids are rocky,

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00:01:16,240 --> 00:01:21,399

comets are icy, and meteors are much smaller and are the shooting stars that you see up in the sky.