

THE WORLD OF METEORITICISTS

Meteoriticists are scientists who study meteors – small rocks from outer space. They look at what meteors are made of and where they came from, to learn about the history of the **solar system**.

Meteoriticist
(ME-tee-or-IT-ih-sist)



*Meteoriticists work with **advanced technology** to track meteors as they fall through the **atmosphere**. They also use **microscopes** and machines that can see inside the meteors – which are called meteorites when they land on Earth – to discover what they are made from.*

WHAT DO METEORITICISTS DO?

The work of meteoriticists can tell us a lot about meteors and meteorites, and also the planets, moons, and asteroids within our solar system.

FIELDWORK

Not all meteors make it through Earth's **atmosphere** without breaking up. This makes the ones that land on the ground very important! But it can be very difficult to find them, because most of these meteorites are very small. Meteoriticists often need help from members of the public, and other scientists, to find out where the meteorites landed.



LAB WORK

Most of a meteoriticist's work is done in the lab. By studying meteorites up close, they can work out what they are made of. They aren't always made of the same types of rock. It depends on where in the solar system they came from. They could have originally been part of an **asteroid**, a **moon**, or even a planet! Meteoriticists can also find out how old meteorites are.

WHO DO METEORITICISTS WORK FOR?

Many meteoriticists work for universities, private research institutions, or museums. They can also work for government-run space agencies like NASA, the European Space Agency or the Japan Aerospace Exploration Agency, alongside other scientists who study things in space.

FAMOUS DISCOVERIES

Meteoriticists have made so many amazing discoveries that have changed our understanding of meteors. Here's just a few of the biggest and best!



METEORITE FROM MARS

In 1984 a meteorite was found that was later discovered to be from Mars. The rock was over 4 billion years old, making it older than any known rock on Earth and almost as old as the solar system itself!



COSMIC COLLISIONS

Scientists think that it was only three collisions between **asteroids** in the **asteroid belt** that created most of the meteorites that land on Earth. These collisions took place between 5.8 million and 40 million years ago!



METEORITE HUNTING

Over 50,000 meteorites have been found in Antarctica alone! The white ice and snow makes it a lot easier for scientists to spot them. The dry conditions also help to **preserve** the meteorites and stop them from being worn away.



Meteoriticists are making discoveries all the time; who knows what they might discover next!

FAMOUS METEORITICISTS

There have been so many clever meteoriticists over the years. Here's just a few of the most famous.



ERNST CHLADNI

Ernst was a German scientist who was the first to suggest that meteors and meteorites came from outer space. It was previously thought that they came from volcanoes or hurricanes!



DENISON OLMSTED

Denison observed the Great Meteor Storm of 1833 and noticed that the meteors all appeared to come from one constellation. He asked other scientists if they had any other observations about the meteor shower – this led to the creation of meteoritics as a science!



MEENAKSHI WADHWA

Indian-born Meenakshi is a scientist who uses meteorites to study Earth and Mars. She compares meteorites from Mars with rocks from Earth to learn how the two planets formed. There is even an asteroid named after her!



These are just a few of the many scientists who have made a huge difference to the study of meteors.