

Was the Moon Made by a Giant Collision?

How was the Moon made?

- Scientists have different theories about how the Moon was formed.
- One of the most popular is that it came from a huge collision between Earth and another planet.

How was the Moon made? Scientists studying Moon rocks think they might have uncovered the answer!

Scientists at the University of New Mexico have found new **evidence** to explain how the Moon was made. They think it was because of a huge **collision**.

No one knows exactly how the Moon was formed. After all, it happened about 4.5 billion years ago — long before any humans were around!

One of the most popular **theories** is called the 'giant impact theory'. This says that a planet called Theia hit Earth. Scientists think Theia was about the size of Mars.

This caused large chunks of rock to break off from both planets. Over a long period, these chunks came together to form our Moon.

However, there was a problem with this theory. Scientists couldn't find any parts of Theia left! The rocks found on Earth and the Moon appeared too similar and there was no evidence of another planet.

Scientists at the University of New Mexico, in the USA, recently begun studying Moon rocks again. This time, though, they found something surprising.

They showed that the Moon rocks were actually different to Earth rocks. They had different levels of **oxygen**.

This might not sound like much but it's got



Illustration: How the impact might have appeared.

scientists excited! It makes the 'giant impact' theory much more likely.

In fact, scientists think they may have found parts of Theia! The rocks studied, which came from deeper under the Moon's surface, were the most different to Earth's rock.

Scientists think this rock used to be part of Theia!

No humans have been back to the Moon since 1972, so there aren't many Moon rocks around. However, NASA has plans to head back. They want to land astronauts on the Moon in 2024.

Glossary

evidence	Facts or information which support a belief or theory.
collision	Two or more things hitting each other.
theories	An idea which explains something, often supported by evidence.
oxygen	A gas humans need to breathe.

Questions

1. 'Scientists studying Moon rocks think they might have **uncovered** the answer!'

Tick the word or phrase which is closest in meaning to 'uncovered' in this sentence.

- ☐ dug up
- ☐ discovered
- ☐ learnt
- ☐ smothered

2. Summarise the 'giant impact theory' in 15 words or fewer.

3. What did scientists find made Earth rocks and Moon rocks different?

- ☐ age
- ☐ colour
- ☐ oxygen levels
- ☐ size

4. 'This might not sound like much but it's got scientists excited!'

Why do you think the author included this sentence? Tick one.

- ☐ To excite the reader.
- ☐ To explain why scientists are excited.
- ☐ To show that it is more important than it appears.
- ☐ To tell you how the Moon was formed.

5. Find a piece of evidence which suggests that not every university can study Moon rocks.

6. Do you think scientists will do more research on Moon rocks in the future?

Answers

1. 'Scientists studying Moon rocks think they might have **uncovered** the answer!' Tick the word or phrase which is closest in meaning to 'uncovered' in this sentence.
 - ☐ dug up
 - ☒ **discovered**
 - ☐ learnt
 - ☐ smothered
2. Summarise the 'giant impact theory' in 15 words or fewer.
Accept any reasonable summary which is 15 words or fewer, e.g. A planet called Theia hit Earth, causing chunks to break off and form our Moon.
3. What did scientists find made Earth rocks and Moon rocks different.
 - ☐ age
 - ☐ colour
 - ☒ **oxygen levels**
 - ☐ size
4. 'This might not sound like much but it's got scientists excited!' Why do you think the author included this sentence? Tick one.
 - ☐ To excite the reader.
 - ☐ To explain why scientists are excited.
 - ☒ **To show that it is more important than it appears.**
 - ☐ To tell you how the Moon was formed.
5. Find a piece of evidence which suggests that not every university can study Moon rocks.
No humans have been back to the Moon since 1972 so there aren't many Moon rocks around.
6. Do you think scientists will do more research on Moon rocks in the future?
Accept any reasonable answer which refers to the news story, e.g. I think scientists will do more research on Moon rocks because astronauts might bring more back when they go to the Moon in 2024.