

A New Moon Crater Is as Wide as Two Soccer Fields

NASA images show where a space rock hit the Moon and changed the dusty ground around it.



A fresh round crater sits in dusty gray ground on the Moon.

A new **crater** has been spotted on the Moon, according to NASA's Astronomy Picture of the Day. A crater is a bowl-shaped hole in the ground. This one was made when a **comet** or **asteroid** hit the Moon. An asteroid is a rocky object in space. A comet is an icy object in space.

NASA says the object was about the size of a humpback whale. That means it was about 30 to 60 feet across. It hit the Moon sometime between April and May of 2024. The crater it made is much wider than the object. NASA says the crater is about two soccer fields across.

Scientists found it by using the Lunar Reconnaissance Orbiter. That is a spacecraft that circles the Moon and takes pictures. It checks the Moon about every month. Its pictures showed the same place before and after the hit.

That matters because scientists rarely get such a clear before-and-after view. NASA says craters this size are expected only once every 132 years. The crater has been named McGetchin. It honors a lunar scientist from the Apollo time, when people first visited the Moon.

The Moon's surface is covered with loose gray dust and broken rock. Scientists call this **regolith**, which means loose lunar dirt. When the object hit, it did not just dig a hole. It puffed up the loose ground around the crater.

NASA also used **thermal imaging**, which shows heat instead of regular light. The crater itself looked warm. Around it was a large colder area. NASA says the puffed-up regolith was less packed together. That made it harder for the ground to hold heat.

Think about jumping into dry sand or powdery snow. Your feet leave marks. But they also change a wider area around the mark. The Moon hit did something like that, but on a huge scale.

This helps scientists learn how the Moon's surface changes over time. It also shows why Earth's atmosphere matters. An atmosphere is the blanket of air around our planet. Many small space rocks burn up there before they reach the ground.

Written from reporting by NASA.

THINK IT THROUGH

1. NASA found this crater because a spacecraft kept watching the Moon month after month. Is it worth spending time and money to keep watching places when nothing special may happen?

A strong answer: A strong answer weighs the cost of steady observation against the value of catching rare events.

2. The crater changed more than the hole we can see. How should that idea change the way people study sudden events in nature?

A strong answer: A strong answer applies the idea of hidden or wider effects to examples such as storms, footprints, landslides, or playground damage.

3. The crater was named to honor a Moon scientist. What should people think about when choosing names for places in space?

A strong answer: A strong answer considers honor, fairness, memory, clarity, and who gets included in scientific naming.

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N S T A E G H R I T E L
E C L Y S T X R T T R I
E D C R A T E R I I O H
L R A R O M E C O M E T
N T D L R O I R M A H D
I O M C O G C N O G L T
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R E T N U M C C E G R L

ASTEROID

COMET

CRATER

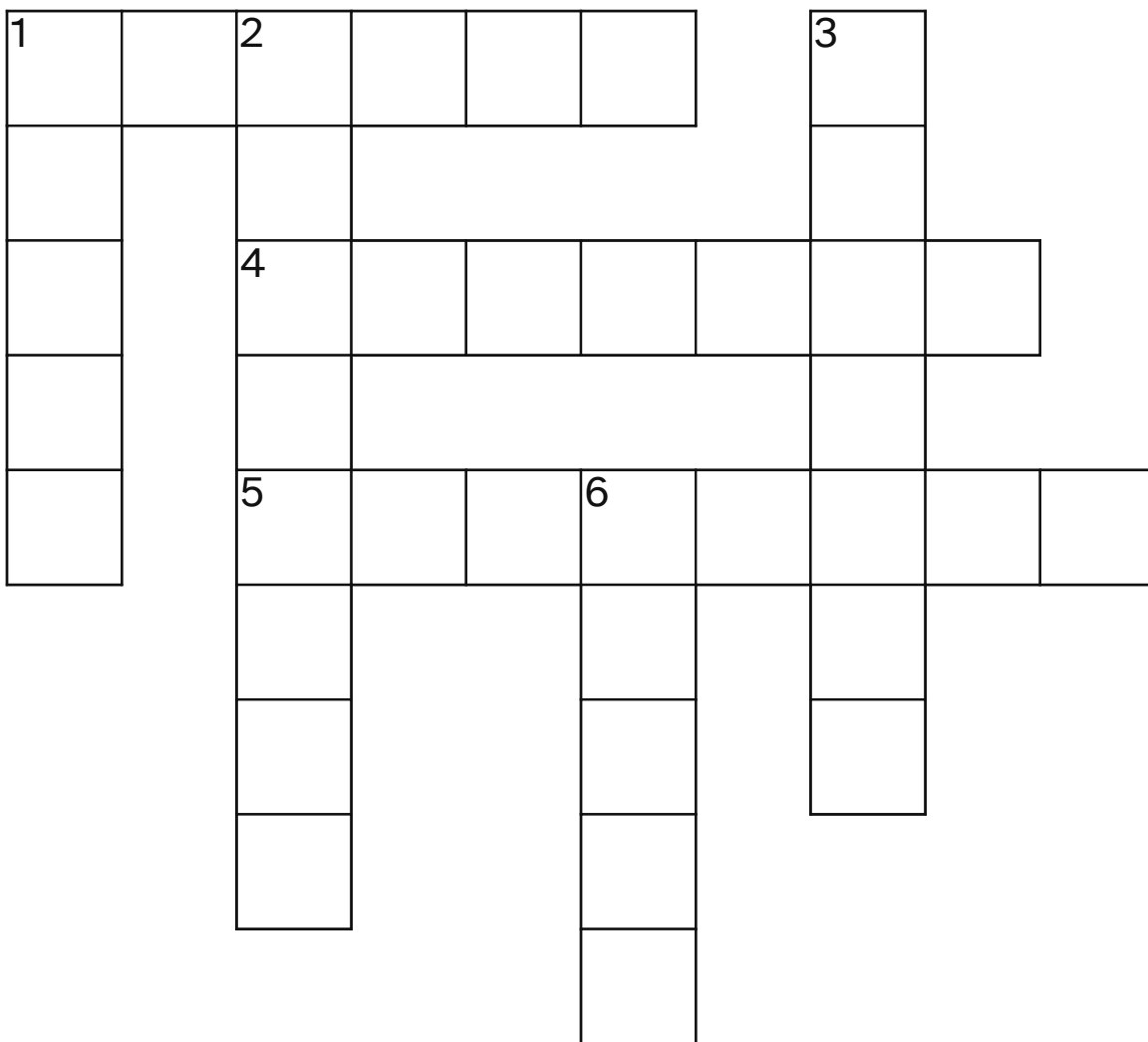
IMAGING

ORBIT

REGOLITH

THERMAL

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ACROSS

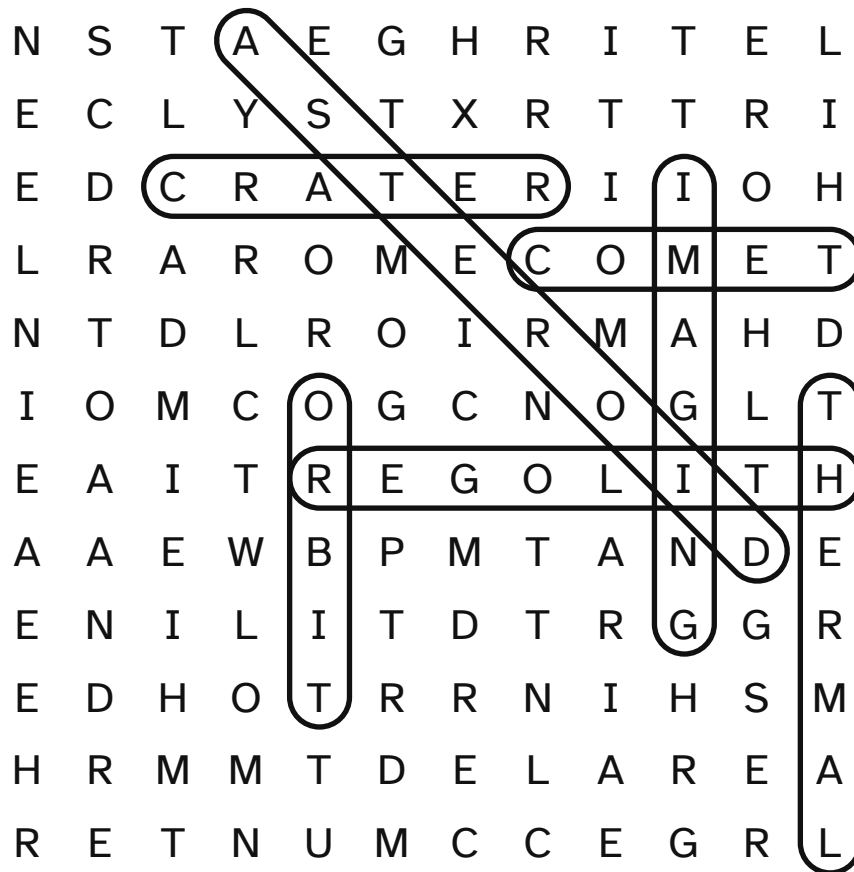
- 1 Bowl-shaped hole made when something hits the ground
- 4 Having to do with heat; used to show warm or cool places
- 5 Loose dust and broken rocks covering the Moon's ground

DOWN

- 1 Icy space traveler, often with a glowing tail
- 2 Rocky traveler in space
- 3 Making pictures that show warmth instead of regular light
- 6 Curved route of an object circling a larger body

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— answer key



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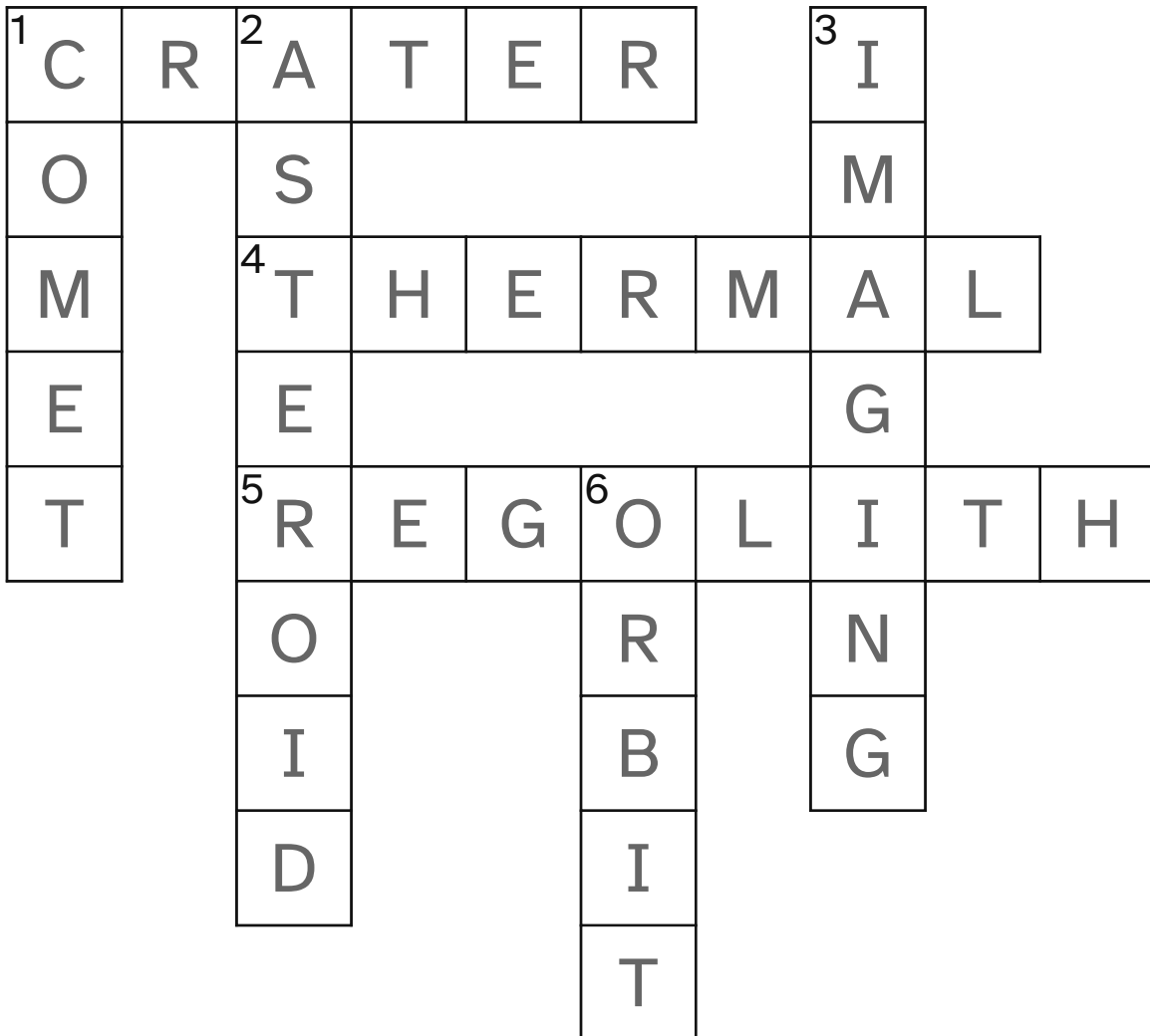
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Where this came from

This article was written for 3andB from the reporting below. It is not a reprint — the wording is ours and the facts are theirs.

NASA

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Read by us on Wednesday, September 23, 2026

<https://science.nasa.gov/image-article/apod-2026-september-23-the-mcgetchin-crater/>

WHAT IS IN THIS PACKET

The article with a note on each question, a word search, a crossword, and the answer key to both.

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