ECLIPSE 2024

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Four stages to a total solar eclipse

First contact occurs when the leading edge of the Moon first touches the leading edge of the Sun.

Over the course of the next 75 minutes or so, the Moon edges across the face of the Sun until it is completely covered. This is called **second contact**, the entirety of the Sun is covered, and the totality phase begins.

Third contact starts when the leading edge of the Moon touches the trailing edge of the Sun, totality ends, and the eclipse begins a second partial phase.

Lastly, **fourth contact** occurs when moon has completely passed over the sun and the eclipse is over.

Source: https://www.highpointscientific.com/

Different types of Eclipses

Total Solar Eclipse

A total solar eclipse happens when the Moon passes between the Sun and Earth, completely blocking the face of the Sun. People located in the center of the Moon's shadow when it hits Earth will experience a total eclipse. The sky will darken, as if it were dawn or dusk. Weather permitting, people in the path of a total solar eclipse can see the Sun's corona, the outer atmosphere, which is otherwise usually obscured by the bright face of the Sun. A total solar eclipse is the only type of solar eclipse where viewers can momentarily remove their eclipse glasses. The next total solar eclipse in the U.S. will be on **April 8, 2024.**

Annular Solar Eclipse

An annular solar eclipse happens when the Moon passes between the Sun and Earth, but when it is at or near its farthest point from Earth. As a result, the Moon appears as a dark disk on top of a larger, bright disk, creating what looks like a ring around the Moon. The next annular eclipse in the U.S. will be on **Oct. 2, 2024.**

Partial Solar Eclipse

A partial solar eclipse happens when the Moon passes between the Sun and Earth but the Sun, Moon, and Earth are not perfectly lined up. Only a part of the Sun will appear to be covered, giving it a crescent shape. The next partial solar eclipse will be on **Mar. 29, 2025.**

Hybrid Solar Eclipse

Because Earth's surface is curved, sometimes an eclipse can shift between annular and total as the Moon's shadow moves across the globe. This is called a hybrid solar eclipse. The next annular eclipse in the U.S. will be on **Nov. 14, 2031**.

Source: https://science.nasa.gov/

Eclipse map of Ohio locations

Source: https://nationaleclipse.com/

LOCATION	START	DURATION
Dayton	3:09:29 PM	2:43
Beavercreek	3:09:57 PM	2:05
Bowling Green	3:11:22 PM	2:59
Delaware	3:11:36 PM	2:35
Dublin	3:11:59 PM	1:23
Toledo	3:12:17 PM	1:53
Sandusky	3:12:21 PM	3:45
Mount Vernon	3:13:10 PM	1:16
Cleveland	3:13:46 PM	3:49
Akron	3:14:14 PM	2:46

What do you call toad traveling to the eclipse?

Answer to riddles on back

What to bring!

If you plan to travel during the eclipse, you should prepare by packing some essentials:

- Extra gas
- Food and water if you are traveling
- Bring plenty of sunscreen and mosquito repellant
- Bring their own chairs
- Blankets
- Solar eclipse viewers.

FEMA also recommends downloading the FEMA App to receive weather alerts for areas you'll be visiting.

WHY DIDN'T THE SUN GO TO COLLEGE?

Answer to riddles on back

Safety Tips

Viewing any part of the bright Sun through a camera lens, binoculars, or a telescope without a solar filter over the front of the optics will instantly cause severe eye injury, according to NASA.

With an increase of travelers to areas in the path of totality, eclipse viewers may encounter challenges such as heavy traffic, distracted driving, limited cell phone service and potentially limited gasoline availability, according to FEMA. Granville schools has decided to shut down school for the eclipse to ensure safety at the recommendation of FEMA.

"During the eclipse, 100% you need to wear them. You don't go out and look at the sun right now, you don't go and stick your tongue on a hot stove,"-- physics and astronomy teacher Mike Bait

How does the man in the moon cut his hair?

Answer to riddles on back

Quick Facts

After the total solar eclipse on April 8, 2024, the next total solar eclipse that can be seen from the United States will be on Aug. 23, 2044.

We can't normally see the Sun's outer atmosphere because the Sun's surface below it is so much brighter. But during a total solar eclipse, it becomes visible.

When a solar eclipse reaches totality, nocturnal wildlife sometimes wakes up and non-nocturnal wildlife might think it's time to head to sleep!

When the Moon completely blocks the visible surface of the Sun during a total solar eclipse, viewers can remove their eclipse glasses.

Source: https://science.nasa.gov/

Riddle Answers:
1. Going where the sun dont shine
2. Eclipse it
3. It already has a million degrees

This eclipse is super rare and only comes every 20-200 years, so make sure you get outside and watch the eclipse on April 8!