How to Safely View the April 8, 2024, **TOTAL SOLAR ECLIPSE**

Protect Your Eves

 Looking directly at the Sun without proper eye protection is unsafe EXCEPT during the brief total eclipse phase ("totality").
 This happens ONLY within the narrow path of totality. At all other times, it is safe to look directly at the Sun ONLY through specialpurpose solar filters, such as "eclipse glasses," that comply with the transmittance requirements of the ISO 12312-2 international standard. Ordinary sunglasses, even very dark ones, are not safe for looking at the Sun.



 If you are inside the path of totality on April 8, 2024, remove your solar filter ONLY when the Moon completely covers the Sun's bright face. As soon as the Sun begins to reappear, replace your solar filter to look at the remaining partial phases.

 Outside the path of totality, there is NO TIME when it is safe to look directly at the Sun without using a solar filter that complies with the transmittance requirements of the ISO 12312-2 international standard.



To find out where to watch, how to watch, and eclipse duration in your area, explore <code>go.nasa.gov/Eclipse2024</code>







WHAT'S THE BIG DEAL?
THE TOTAL SOLAR ECLIPSE
Monday, April 1 6:30 PM - 7:30 PM

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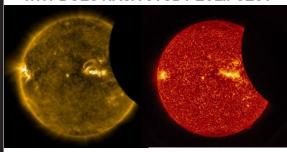


Credit: Michala Garrison and the Scientific Visualization Studio (SVS), in collaboration with the NASA Hellophysics Education Activation Team (NASA HEAT), part of NASA's Science Activation portfolio. Eclipse actuations by Emie Wright, NASA Goddard Space Flight Certain

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WHY DOES NASA STUDY ECLIPSES?



Eclipses aren't just beautiful—they're great for science. For over a century, solar eclipses helped scientists decipher the Sun's structure and explosive events, find evidence for the theory of general relativity, and discover helium. Today eclipses help NASA predict the structure of the Sun and its impact on Earth. Total eclipses are a unique opportunity to study the Sun because they allow scientists to see a part of the Sun's atmosphere — known as the corona — that is key to answering fundamental questions about how heat and energy are transferred from the Sun out into the solar wind, the constant stream of particles that the Sun scatters into the solar system.

WHAT IS A TOTAL SOLAR ECLIPSE?

For a **total solar eclipse** to take place, the Sun, Moon, and Earth must be in a direct line. The people who see the total eclipse are in the center of the Moon's shadow when it hits Earth. The sky will darken, as if it were twilight. Weather permitting, people in the path of a total solar eclipse can see the Sun's corona, the outer atmosphere of the Sun. A total solar eclipse is the only type of solar eclipse where viewers can watch without their eclipse glasses – and they can only remove them when the Moon is completely blocking the Sun.

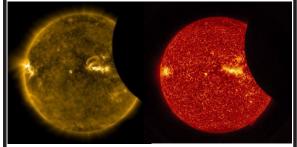
A partial eclipse happens when the Sun, Moon, and Earth are not exactly lined up. Only a part of the Sun will appear to be covered. During a total or annular solar eclipse, people outside the Moon's inner shadow see a partial solar eclipse.



A total solar eclipse is about as bright as a full Moon — and just as safe to look at. But the Sun at any other time is dangerously bright. View it only through special-purpose solar filters that comply with the transmittance requirements of the ISO 12312-2 international standard for filters for direct solar viewing.



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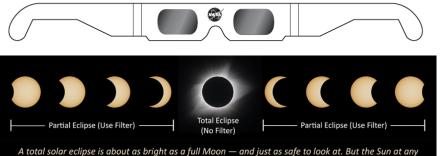


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