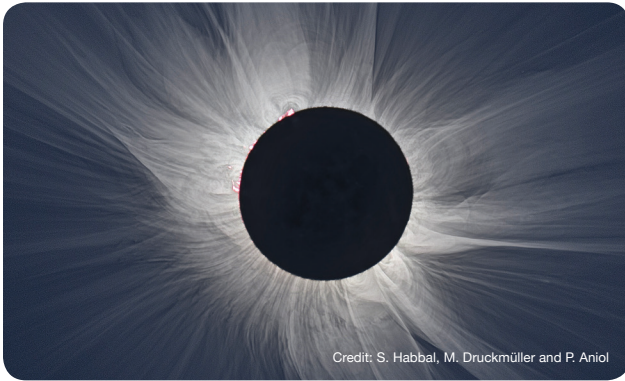
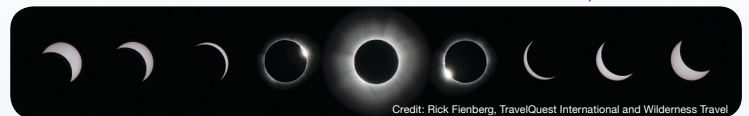
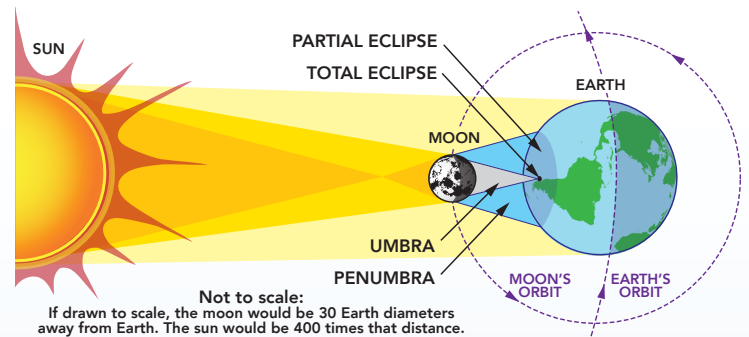


EXPERIENCE THE 2019 ECLIPSE IN SOUTH AMERICA TUESDAY • JULY 2, 2019



TOTAL SOLAR ECLIPSE: Tuesday • July 2, 2019



In this series of stills from 2013, the eclipse sequence runs from right to left. The center image shows totality; on either side are the 2nd contact (right) and 3rd contact (left) diamond rings that mark the beginning and end of totality respectively.

WHERE TO WATCH

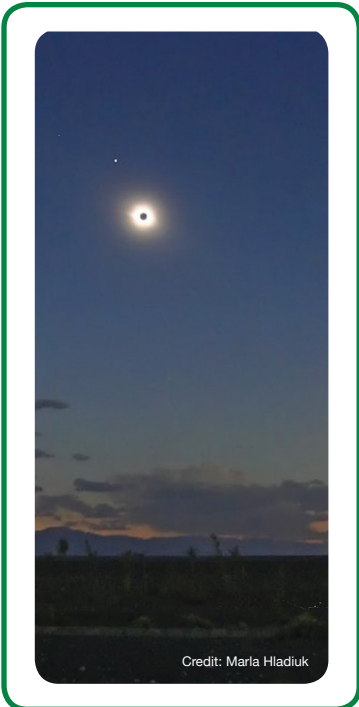
Find a nice, clear spot with a good view of the sky.

HOW TO WATCH

You can see the sun and the eclipse with special eclipse glasses. **NEVER** look directly at the sun without appropriate eyewear. Regular sunglasses are not safe to view the eclipse. More: <https://go.nasa.gov/2evRZBG>

HOW LONG WILL IT LAST

The total eclipse, when the sun is completely blocked by the moon, will last up to 4 minutes and 3 seconds, depending on your location.



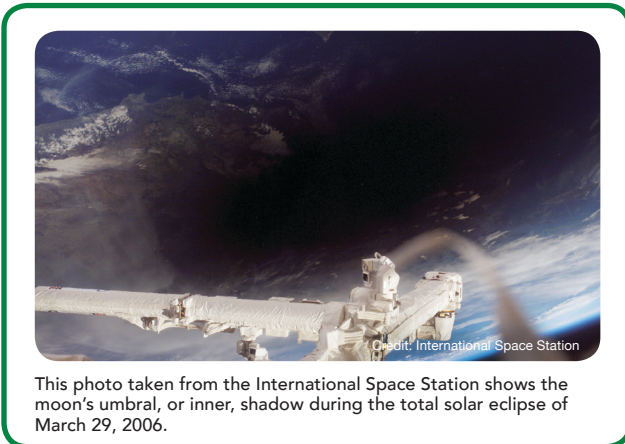
WHAT IS A SOLAR ECLIPSE?

A solar eclipse happens when the moon casts a shadow on Earth, fully or partially blocking the sun's light in some areas.

Observers within the path of totality will be able to see the sun's corona (weather permitting), like in the images above and left. Observers outside this path will see a partial eclipse.

THE NEXT ECLIPSE

After the 2019 solar eclipse, the next total solar eclipse visible over South America will be December 14, 2020.



Total Solar Eclipse of July 2, 2019

Credit: NASA's Scientific Visualization Studio

This map shows the path of the moon's umbral shadow—in which the sun will be completely obscured by the moon—during the total solar eclipse of July 2, 2019. The eclipse begins over the Pacific Ocean and the lunar shadow enters South America near La Serena, Chile at 3:22 p.m. EDT (3:22 p.m. CLT). Totality begins in La Serena at 4:38 p.m. EDT (4:38 p.m. CLT). The total eclipse will end near Chascomús, Buenos Aires, Argentina at 4:44 p.m. EDT (5:44 p.m. ART), not long before sunset at 5:24 p.m. EDT (6:24 p.m. ART). Outside this path, a partial solar eclipse will be visible in the rest of Chile and Argentina as well as Ecuador, Peru, Bolivia, Paraguay, Uruguay and parts of Colombia, Brazil, Venezuela and Panama.

SAFELY observing

THE SUN

WARNING! Never look directly at the sun without proper eye protection. You can ***seriously*** injure your eyes.



Check with local science museums, schools and astronomy clubs for eclipse glasses—or purchase an ISO 12312-2 compliant pair of these special shades!



View the eclipse with special eclipse glasses.



Regular sunglasses are not safe to view the eclipse.

SUN FUNNEL



Inexpensive and easy to build, the sun funnel is a device that completely encloses the light coming from a telescope and projects a magnified image of the sun, large enough for many people to view at once.
<http://eclipse2017.nasa.gov/make-sun-funnel>

STRANGE SHADOWS!



Copyright © Elisa J. Israel

Sunlight from a partial eclipse funnels through tree leaves to project images of crescents on the ground.

ECLIPSE DETAILS FOR CITIES IN THE PATH OF TOTALITY (OR NEAR PATH)

	Eclipse Begins	Totality Begins	Totality Ends	Eclipse Ends	
La Serena, Chile	15:22:34	16:38:14	16:40:29	17:46:37	CLT
San Juan, Argentina	16:26:00	17:40:22	17:40:50	18:46:16*	ART
Rio Cuarto, Argentina	16:30:48	17:41:26	17:43:26	18:45:57*	ART
Venado Tuerto, Argentina	16:33:16	17:42:16	17:44:27	18:45:44*	ART
Chañar Ladeado, Argentina	16:33:32	17:42:56	17:44:27	18:46:05*	ART
Junin, Argentina	16:33:44	17:42:10	17:44:11	18:45:06*	ART
Chascomús, Argentina	16:35:59	17:42:40	17:44:43	18:44:22*	ART
Rufino, Argentina	16:31:57			18:45:12*	ART
Rosario, Argentina	16:35:28			18:47:27*	ART
Buenos Aires, Argentina	16:36:27			18:45:10*	ART

*after sunset at this location, so eclipse will effectively end prior to this time

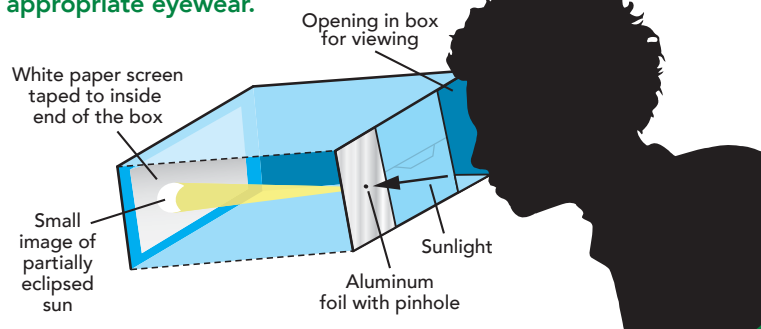
Seconds may vary depending on your location. View the interactive map for more information:
<https://go.nasa.gov/2GDyblH>

MAKE YOUR OWN ECLIPSE PROJECTOR

You can make this simple eclipse projector with almost any cardboard box, paper, tape and foil.

The longer the distance from the pinhole to screen, the larger the image of the sun will be.

NEVER look directly at the sun without appropriate eyewear.



More on eclipses | <http://www.nasa.gov/eclipse>
<http://go.nasa.gov/2evRZBG>

MIRROR IN AN ENVELOPE

Slide a mirror into an envelope with a ragged hole about 5/8 inch (1.5 cm) cut into the front. Point the mirror toward the sun so that an image is reflected onto a screen about 15 feet (5 meters) away. The longer the distance, the larger the image.

DO NOT LOOK AT THE MIRROR, ONLY AT THE SCREEN.

