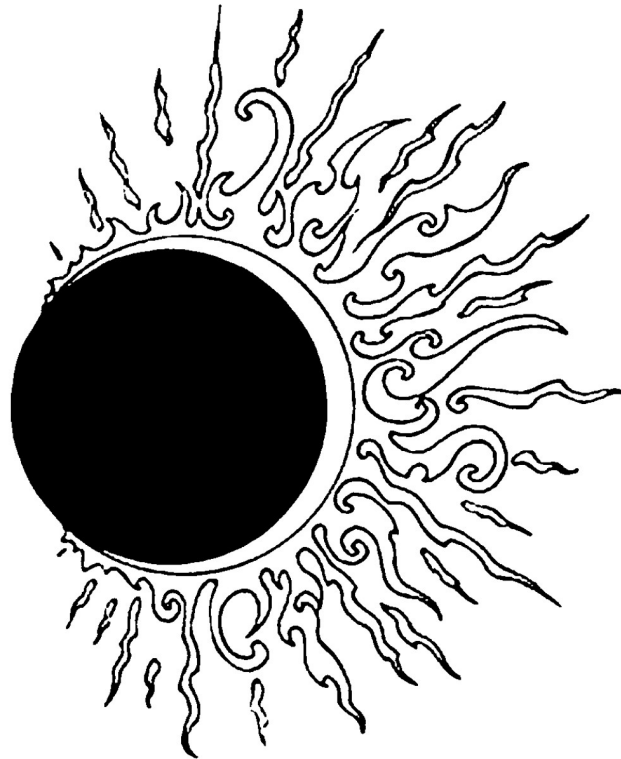


2017



solar

eclipse

safety first!



[Watch the LIVE NASA STREAM!!](https://www.nasa.gov/eclipselive-info) <https://www.nasa.gov/eclipselive-info>

EYE SAFETY DURING AN ECLIPSE



It's NEVER safe to look directly at the sun, except when the sun is completely blocked during the period of a total eclipse known as *TOTALITY*.



1

PARTIAL ECLIPSE • GLASSES ON

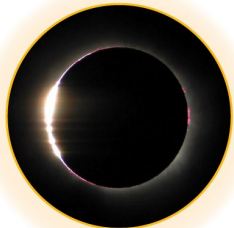
The eclipse begins when the sun's disk is partially blocked by the moon. This partial eclipse phase can last over an hour.



2

DIAMOND RING • GLASSES ON

Shortly before totality, the crescent sun converges into a single brilliant "diamond" of sunlight as the last bit of the sun's bright disk shines along the edge of the moon, while the first glimpses of the faint corona create a "ring" around the moon.



3

BAILY'S BEADS • GLASSES ON

In the last little moment before totality, you may see the "diamond ring" break up into "beads" created as the sun's light shines through the low-lying valleys along the edge of the moon. These are called Bailey's Beads.



4

TOTALITY • GLASSES OFF

Once the Bailey's Beads disappear and the moon completely covers the entire disk of the sun, you may safely look at the eclipse without a solar filter. Be careful to protect your eyes again before the end of totality—the total eclipse may last less than a minute in some locations.



5

FINAL STAGES • GLASSES ON

A crescent will begin to grow on the opposite side of the sun from where the diamond ring appeared at the beginning. This crescent is the lower atmosphere of the sun, beginning to peek out from behind the moon and it is your signal to stop looking directly at the eclipse. ***Make sure you have safety glasses back on—or are otherwise watching the eclipse through a safe, indirect method—before the first flash of sunlight appears around the edges of the moon.***

Images 1, 2, 4, 5 Credit: Rick Fienberg, TravelQuest International and Wilderness Travel
Image 3 Credit: Arne Danielson

2017 solar eclipse

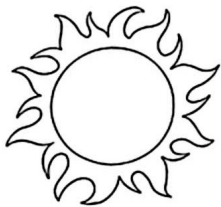
Date & Time of Solar Eclipse: _____ I am _____ years old.

I watched from: _____ How I watched: _____

I traveled to watch the eclipse: ☐ Yes ☐ No Was it total darkness? ☐ Yes ☐ No If no: _____%

What is the weather like today? Did it help/hinder my viewing experience? _____

How many people across the U.S. could see this eclipse? _____



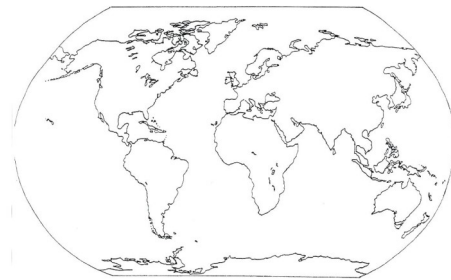
SUN



MOON



earth



Draw the
eclipse
path



What is a solar eclipse, and when was the last time one was seen?



What are the three types of Solar Eclipses?



How often does a solar eclipse occur and why doesn't it occur every month?



Why isn't it safe to look directly at a solar eclipse or the sun?

Some myths about the solar eclipse are...

2017

solar

eclipse

Date & Time of Solar Eclipse: _____

I am _____ years old.

I watched from: _____

How I watched: _____

I traveled to watch the eclipse:

☐

Yes

☐

No

Was it total darkness?

☐

Yes

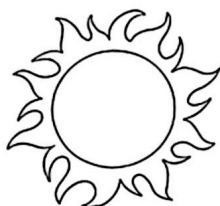
☐

No

If no: _____%

What is the weather like today? Did it help/hinder my viewing experience? _____

How many people could see this eclipse? *Everyone in the U.S. and North America, plus some parts of South America, Africa, and Europe will see at least a partial solar eclipse.*



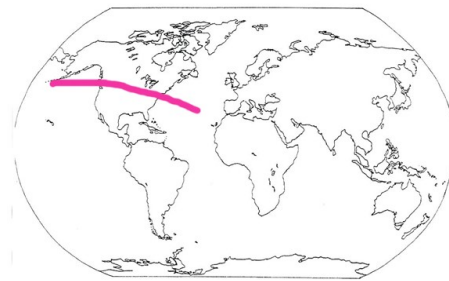
sun



moon



earth



Draw the
eclipse
path



What is a solar eclipse and when was the last time one was seen?

A solar eclipse is an event in which the moon passes between the sun and Earth. The entire eclipse takes about three hours from beginning to end. Solar eclipses can only occur during a New Moon. Answers may vary, but the last eclipse for the U.S. was in 1979.



What are the three types of Solar Eclipses?

A total eclipse occurs when the Moon completely covers the Sun as seen from Earth. A partial eclipse happens when the moon only partially covers the Sun. An Annular Eclipse is when the Moon appears smaller than the Sun as it passes centrally across the solar disk and a bright ring of sunlight remains visible during the eclipse.



Why isn't it safe to look directly at a solar eclipse or the sun?

The sun outputs more power than our eye is designed to handle. Exposing our eye to that kind of power can damage the retina permanently.



How often does a solar eclipse occur and why doesn't it occur every month?

There are between 2-5 solar eclipses every year including total, partial, and annular.

Myths about the solar eclipse are...

Answers will vary, look up myths about eclipses online.