



2022'S *ECLIPSING*
ASTRONOMICAL
CALENDAR



Mae Connors



DEFINING ECLIPSES

SOLAR ECLIPSE:

☐ A solar eclipse occurs when part of the Earth is caught in the moon's shadow, as the moon partially or totally blocks out the sun's light.

☐ alignment: Sun -> Moon -> Earth



LUNAR ECLIPSE:

☾ A lunar eclipse occurs when the moon is caught directly in the Earth's shadow as it blocks the sun's light.

☾ alignment: Sun -> Earth -> Moon





DEFINING ECLIPSES (CONT.)

TOTAL ECLIPSE:

- ◆ Total solar eclipses occur in a specific zone where the Moon blocks 100% of the sun's light, creating a path of totality.

- ◆ Total lunar eclipses occur much more often than total solar eclipses, as the Earth has a much easier time covering the entire moon with its shadow.

PARTIAL ECLIPSE:

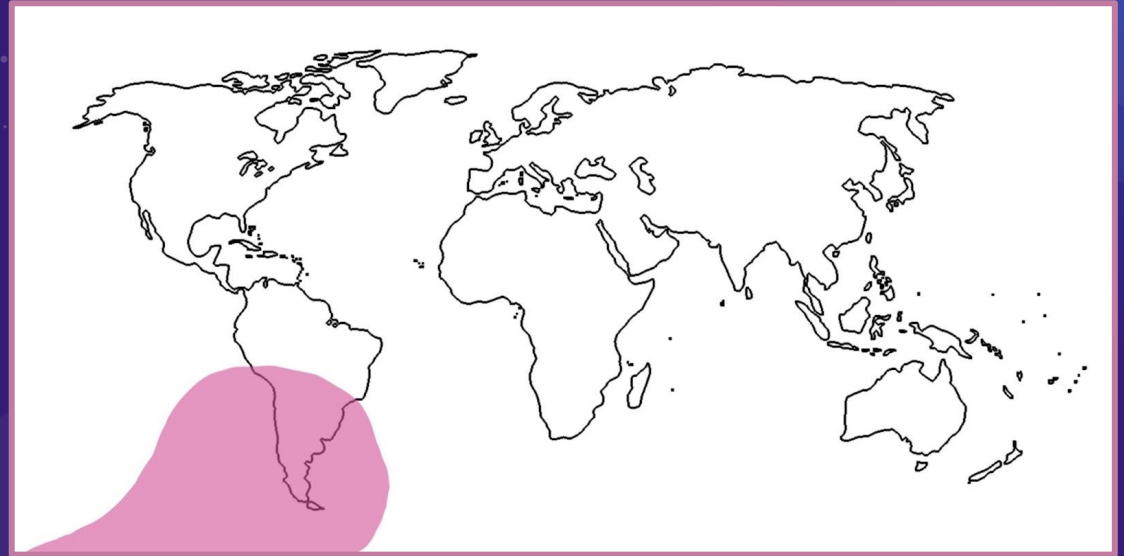
- ◆ Partial solar eclipses can be observed from anywhere besides a location inside the path of totality.

- ◆ Partial lunar eclipses are only seen from parts of the Earth not facing the moon at the time of the lunar eclipse.

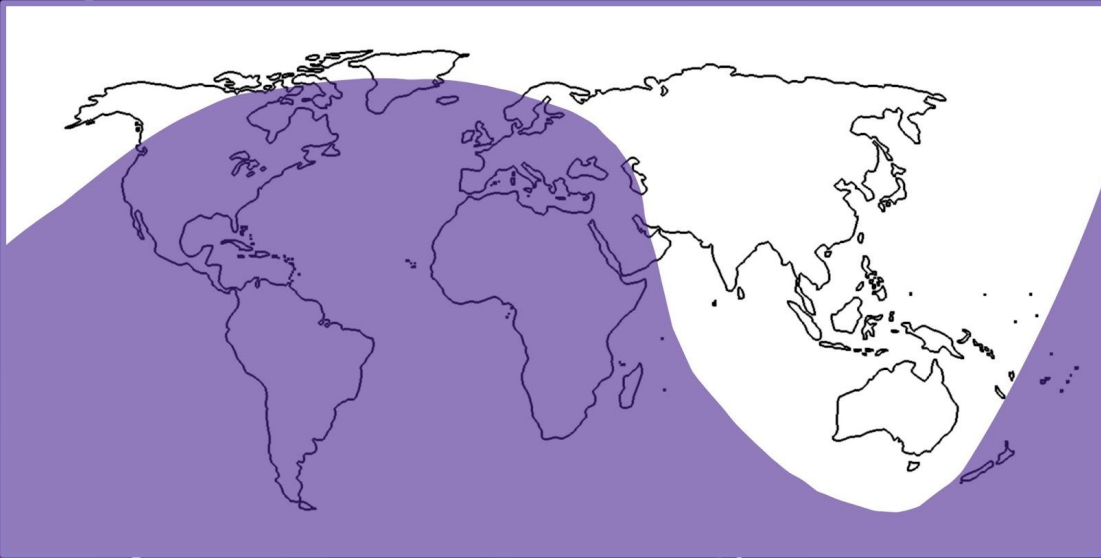
APRIL 30: PARTIAL SOLAR ECLIPSE

The April 30 solar eclipse will travel its path of totality across the southern half of South America, and will be best observed at the tips of Chile and Argentina.

From North Carolina, this eclipse will not be visible, as it is in the opposite hemisphere.



MAY 16: TOTAL LUNAR ECLIPSE



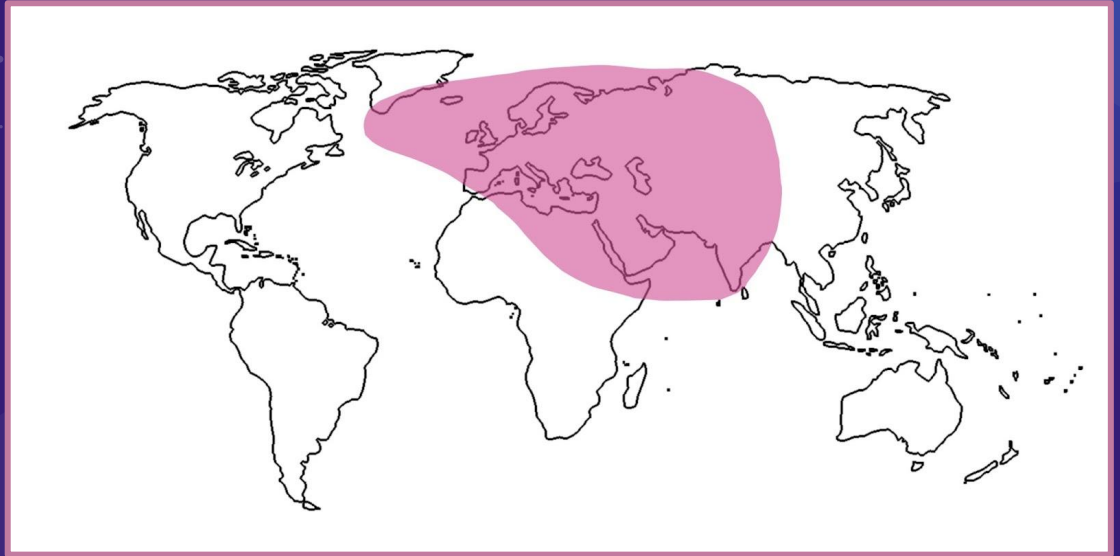
The May 16 eclipse's path of totality is much wider, and is visible from Africa, South America, most of North America, and most of Europe.

From North Carolina, the entire eclipse will be visible.

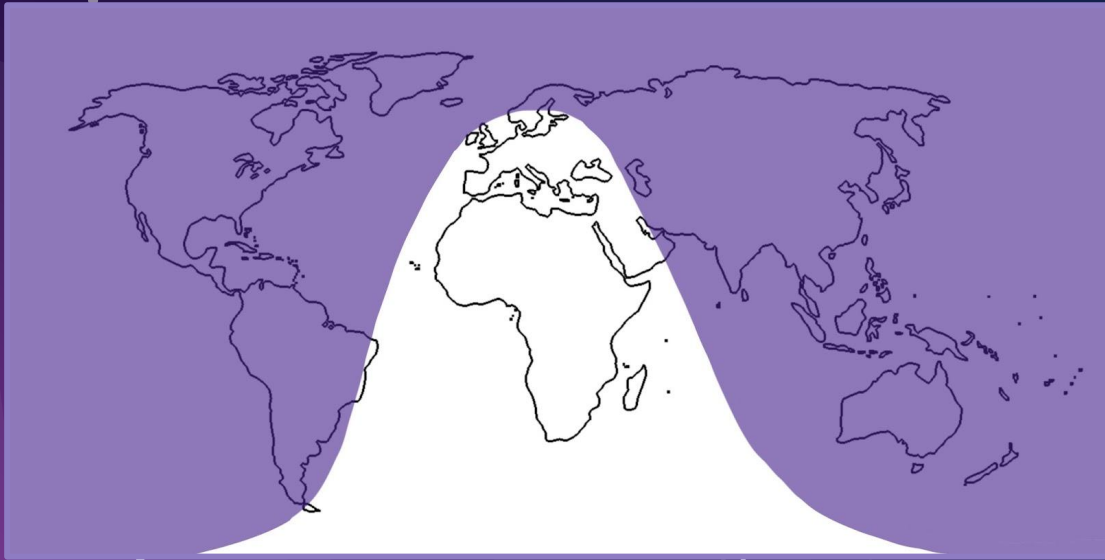
★ OCTOBER 25: PARTIAL SOLAR ECLIPSE ★

Similar to the April 30 eclipse, Oct. 25's will only be visible from within a small zone of totality. This zone covers Europe, about half of Asia, and a bit of Africa.

Unfortunately, it will not be visible to us in North Carolina.



★ NOVEMBER 8: TOTAL LUNAR ECLIPSE ★



Nov. 8's lunar eclipse is visible all over the globe, with the exception of almost all of Africa, and most of Europe.

From North Carolina, observing this eclipse will be very easy, as we are located in the totality zone.

!!BONUS!!

★ APRIL 8, 2024: TOTAL SOLAR ECLIPSE ★

Though it isn't for another two years, the April 8, 2024 eclipse is the closest upcoming total solar eclipse that will be visible from a location close by. It also happens to be the last North American total solar eclipse we will see until 2045.

The next total solar eclipse visible from our location is the May 11, 2078 eclipse, which will pass right over Raleigh.



“Our planet is the only planet in the solar system where the sun and moon are the right sizes to allow us to have both solar and lunar eclipses. It’s really amazing to think about.”

- Northwood High School Astronomy teacher, Ms. Stephanie Cifers