

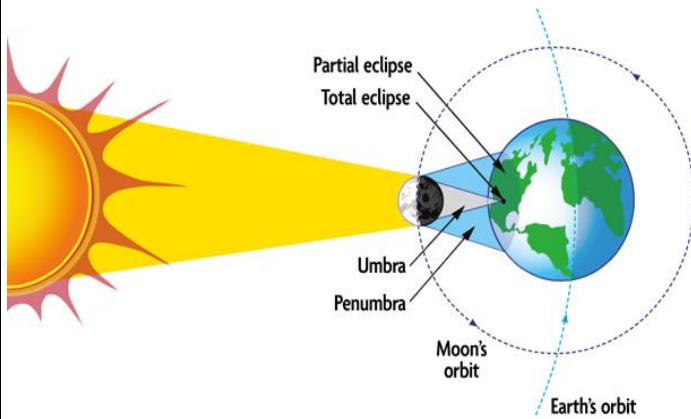


# Great North American Eclipse

## April 8<sup>th</sup> 2024

### What is an Eclipse?

- A solar eclipse happens when the Moon passes in front of the Sun and casts a shadow on to the Earth.



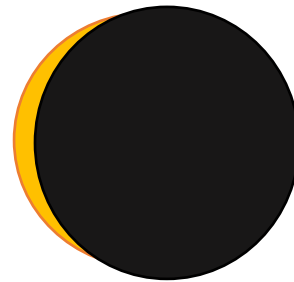
- Frederick County will be in the penumbra, that is why we will see a partial eclipse.

### Viewing Details for Frederick County Maryland

Begin time: 2:04 PM (Moon First Contact)

Maximum Coverage: 3:20 PM  
Sun is at its most hidden at 91 % coverage.

End time: 4:32 PM  
Edge of Moon leaves the edge of Sun.



- This is what the Sun will look like at its greatest coverage (91%). During this time, animals and plants will react to the fallen levels of light.

### How to Safely Observe an Eclipse

- Frederick County will observe a partial eclipse, which means there will be **no** time that will be safe to view the Sun without protective solar viewing glasses, called "Eclipse Glasses."
- Eclipse glasses are not like regular sunglasses, no sunglasses, no matter how dark, are safe for viewing the Sun.
- If you purchase eclipse glasses make sure they have **ISO 12312-2** international standard certification.
- Children should always be closely monitored during eclipse viewing.
- There are ways to indirectly observe the eclipse safely with pinhole viewers and projectors.
- Never look through binoculars, camera lens, or telescope without specialized solar filters when observing the eclipse.



### Want to Learn More?

[NASA Eclipse Page](#) background information, eclipse animations, eclipse maps, and citizen science



[Frederick, MD Eclipse Statistics](#) start and end times, animations



[Steps: How to Make a Pinhole Viewer](#)



[AAS Eye Safety and Optical Projection](#)

[NASA Space Place: What is a Solar Eclipse](#) video

