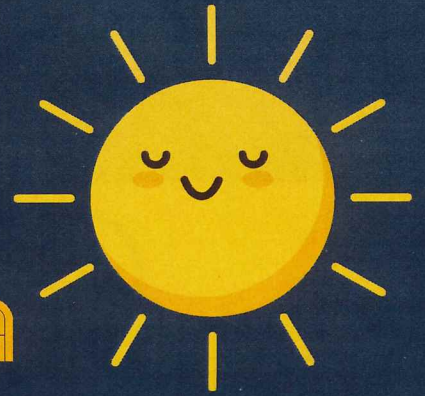


# APRIL 8TH SOLAR ECLIPSE AND ALL YOU NEED TO KNOW



## HOW TO WATCH

### A SOLAR ECLIPSE SAFELY

in order to watch this amazing solar eclipse safely you need to wear special eye protection. you can buy special eclipse glasses from amazon or other stores near you.

### WHAT IS A SOLAR ECLIPSE

a total solar eclipse is when the moon passes directly between the earth and the sun blocking the sunlight from the earth

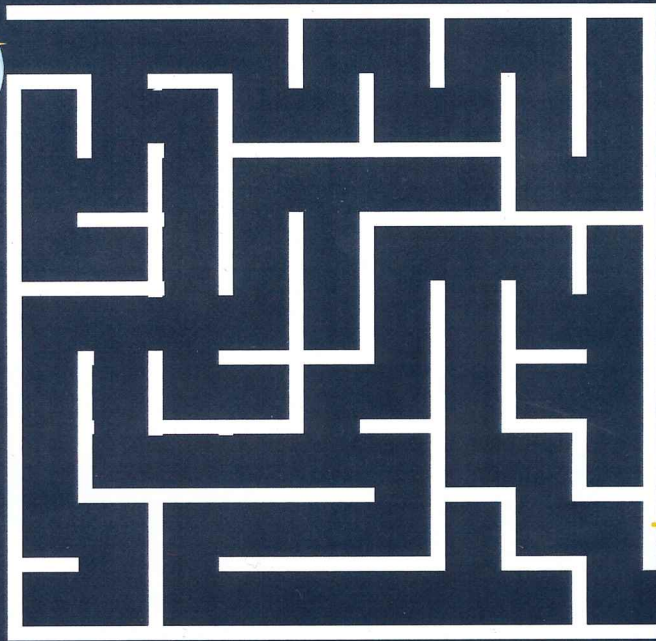
### TOTALITY

totality is when the moon completely blocks the sun. this is happening for a total of 3 minutes and 52 seconds

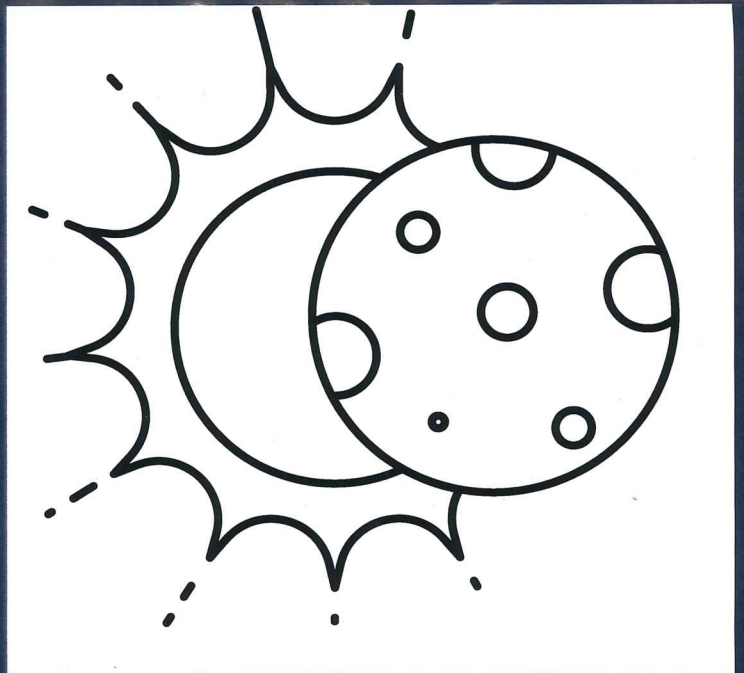
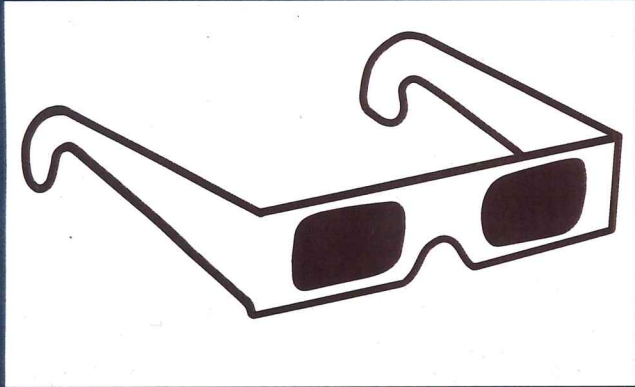




# ACTIVITY PAGE



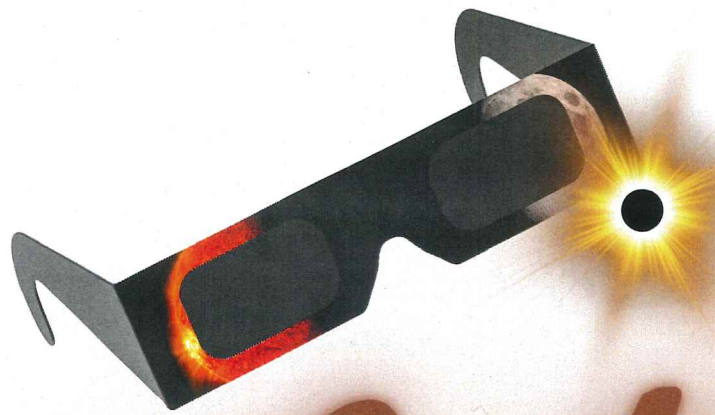
help the sun find the moon



color these fun  
eclipse themed  
pictures

CREATED BY: ISABELLA HOPKINS



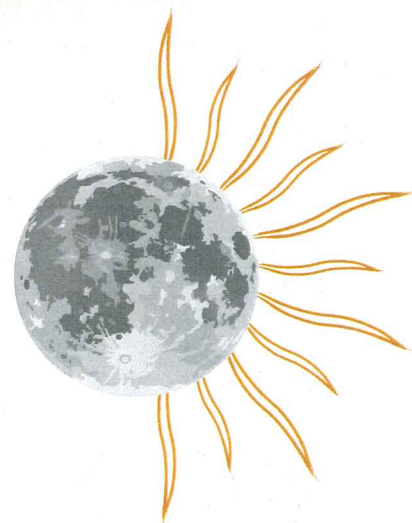


# Total Solar Eclipse

April 8th

**Right over where we live!**

**Always follow proper safety  
procedures! Check the back for  
more information.**





# What is a Total Solar Eclipse?

We are seeing a total eclipse because we are in the path of the moon's umbra

**Umbra-** the fully shaded part on earth that the moon has covered

**Penumbra-** the partially shaded outer edge of the shadow made by the moon

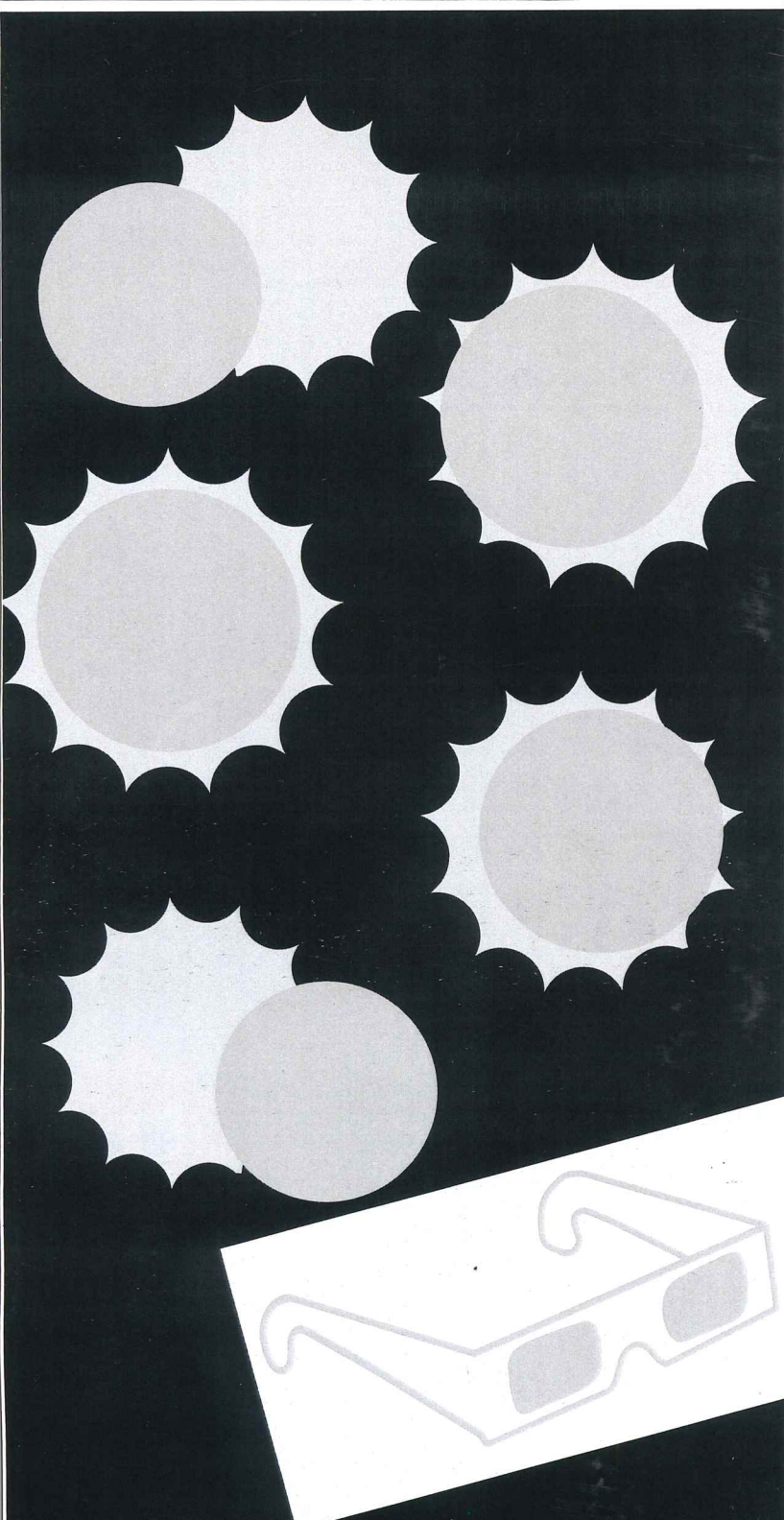
# EYE WEAR

- *Safe solar glasses are much darker than normal sunglasses*
- *Cameras for taking pictures also need a special lens or damage may occur*
- *During totality, no sunglasses are needed*

**A solar eclipse is when the moon passes between the earth and the sun, creating a shadow on earth. As a result, we get a amazing eclipse.**

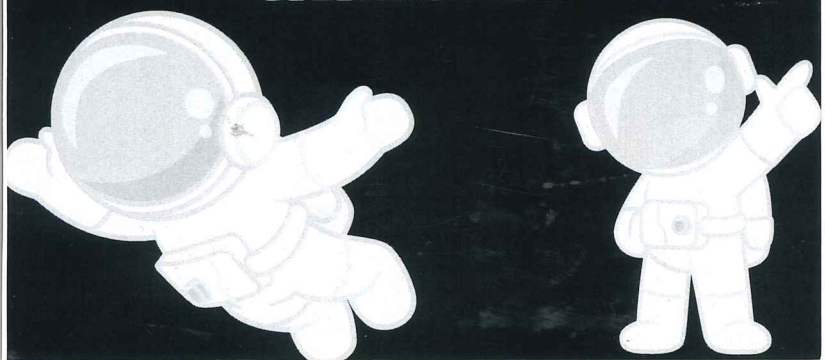
Created by: **NORA LAUER**





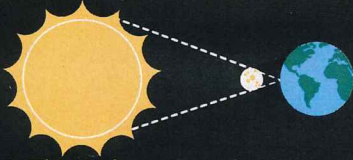
# SOLAR ECLIPSE

COLORING PAGE!



# SOLAR ECLIPSES

## WHAT IS THE BIG DEAL??



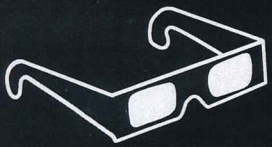
Total Solar Eclipses are very rare! This is because the Sun, Moon and Earth have to perfectly align with each other. Solar eclipses happen during a full moon! But, if full moons happen every month, why don't we experience eclipses all the time? The moon's orbital path around the Earth is slightly tilted, so the moon's shadow does not always hit Earth. Also, to see a total solar eclipse, you have to be in the Moon's umbra (darkest part of shadow). If you're in the penumbra (lightest part of shadow) you only see a partial solar eclipse. It will take a couple of hours to reach totality, which is when the moon completely blocks the Sun's light which will last 3:54 minutes. Ohio happens to be in the path of the umbra so we have a solar eclipse that we can see from our homes!



## HOW TO BE SAFE!

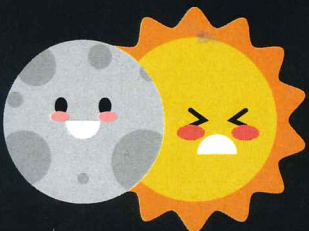
Wear your solar glasses provided in your bag! Fun fact: You can look directly at the eclipse during totality, but put your glasses back on before the sun comes back out.

Another thing is that when you take a picture of the Sun before totality it could break your camera! So make sure if you want to take a picture you should buy a lens for your camera. This includes phones!



## WHY DO WE NEED SOLAR GLASSES?

When totality begins, the moon will block the Sun's light causing it to be dark. Your eyes will get used to the dark, so when it begins to go away and you look up without solar glasses, your eyes could be damaged. Do you know the feeling when you turn on the light when you wake up in the morning? Imagine that, but worse! Ouch! You should also wear the eclipse glasses before and after the eclipse, because when looking at the sun with your bare eyes, you'll just see a big bright light... not fun!



CREATED BY: AVA THOMPSON






# ALL ABOUT TOTAL SOLAR ECLIPSES



## WHAT ARE SOLAR ECLIPSES?

A solar eclipse is when the sun, the moon, and Earth are fully aligned in that order. The sun shines on the moon and then the moon casts a shadow on the Earth. There are parts of a shadow, called an umbra and a penumbra. To see a total solar eclipse you must be in the moon's umbra. To see a partial solar eclipse you must be in the moon's penumbra.



## IS IT SAFE TO LOOK AT A TOTAL SOLAR ECLIPSE?



Be careful! Even though the moon is covering the Sun, it could still cause damage to your eyes. Fortunately, there are safe ways to view the solar eclipse. You can wear special solar eclipse glasses designed just for this purpose. These glasses prevent the sun's dangerous rays.



## CAN I TAKE PICTURES DURING THE TOTAL SOLAR ECLIPSE?

Watch out! Those pretty pictures you want to take could cause damage to your phone or camera. Just like your solar eclipse glasses, you need a special filter to cover your camera. If you have a filter over your camera or phone you are safe to take photos!



## HOW LONG DOES TOTALITY LAST FOR?

Totality is when the sun, moon, and Earth are fully aligned and this is when we see an eclipse. Totality lasts from a few seconds up to 8 minutes. We will see totality for 3 minutes and 52 seconds.



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