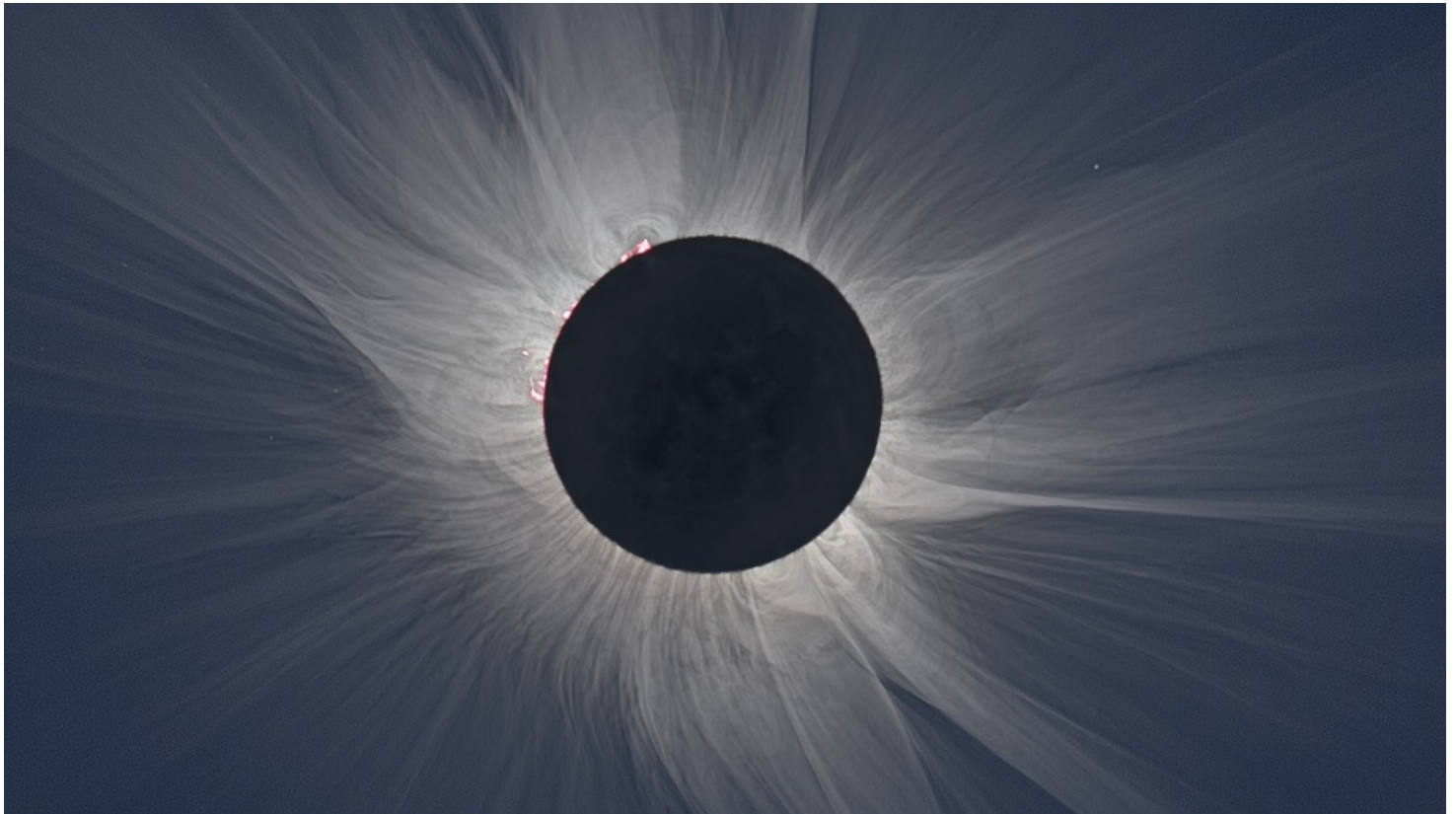


How to safely view a solar eclipse

By Science Friday, adapted by Newsela staff on 08.14.17

Word Count **460**

Level **560L**



A total solar eclipse. Photo from: NASA. Illustrations by: Carrie Lapolla, www.carriepolla.com.

A total solar eclipse is rare. It happens when the moon lines up between the sun and the Earth. For a brief moment, the moon blocks out the sun.

The next total solar eclipse will take place on August 21, 2017. Many people will get to see it. The eclipse will pass over North America. The last time most people in the U.S. got to see a total eclipse was 1918. The next time will not be until 2024. Here is a guide for the big event.

Solar Eclipse Safety Tips

It is not safe to look directly at the sun. This is true even if you are wearing sunglasses. Be sure to use a special viewer to watch the eclipse. Solar viewers will work. So will eclipse viewing glasses. If you do not have these, use a pinhole viewer.

The solar eclipse will pass across North America. Its path is called the path of totality. Places along the path will get to see a total solar eclipse. For a moment, the sun will be hidden. The sky will go dark. The path of totality goes through several states. They include Oregon, Nebraska, Missouri, Tennessee and South Carolina.

The eclipse will travel from west to east. It will appear first in

Oregon in the morning. It will leave South Carolina in the afternoon. The eclipse will cross the United States in about 94 minutes.

What Is An Eclipse?

Eclipses take place when the Earth or the moon blocks light from the sun. This happens when the sun, Earth and moon are lined up.

Sometimes the moon lines up between the sun and the Earth. This blocks out the sun. The result is a solar eclipse.

Sometimes the Earth lines up between the sun and the moon. This blocks out the moon, causing a lunar eclipse.

Why Doesn't This Happen All The Time?

The moon and the Earth both circle around the sun. Their paths are similar. However, they are not quite the same. The moon's path is tilted away from Earth's. As a result, the moon does not always line up between the sun and the Earth. It is usually too high or too low to cause an eclipse.

HOW DO I VIEW THE SOLAR ECLIPSE?

STEP 1
Go outside



STEP 2
Put on your eclipse glasses
NEVER look directly at the sun without them!



Make sure the lenses have no visible damage and meet the ISO 12312-2 international standard.
DO NOT USE SUNGLASSES!

STEP 3
Look up and say:
wow, ooh, and aah!

