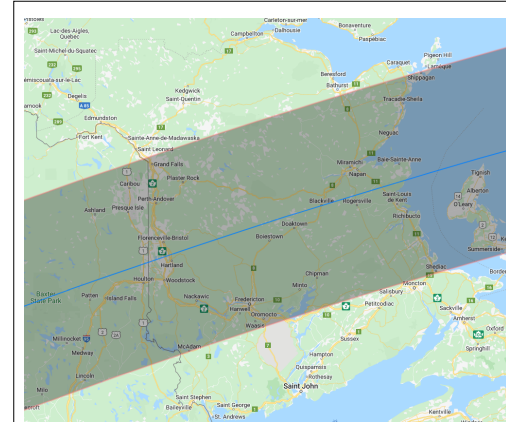




# ARE YOU ECLIPSE READY?



On April 8th 2024, a Total Solar Eclipse will cross Central New Brunswick from West to East. A path of totality measuring approximately 150 Km wide will offer a complete Total Solar Eclipse experience if you are within this path.

## Safety Matters - Protect your eyes!

People often ask if there is dangerous radiation when there’s an eclipse; the answer is there’s sunlight. Sunlight is radiation, and it is dangerous if not appropriately observed. Eclipse day is just like another day. You may have seen a lens focus sunlight and burn paper. If your eye lens focuses sunlight, it can burn your retina. **You must protect your eyes to look at the Sun. Sunglasses are not adequate.**



## Instructions for the Safe Use of Solar Filters and Viewers

- Always inspect your solar filter before use; discard if scratched, punctured, torn, or otherwise damaged. Read and follow any instructions printed on or packaged with the filter.
- Always supervise children using solar filters.
- If you normally wear eyeglasses, keep them on. Put your eclipse glasses on over them or hold your handheld viewer in front of them.
- Stand still and cover your eyes with your eclipse glasses or solar viewer before looking up at the bright Sun. After looking at the Sun, turn away and remove your filter – do not remove it while looking at the Sun.
- Do not look at the un-eclipsed, partially eclipsed, or annular eclipsed Sun through un-filtered camera, telescope, binoculars, or other optical device.
- Similarly, do not look at the Sun through an unfiltered camera, telescope, binoculars, or any other optical device while wearing your eclipse glasses or using a handheld solar viewer in front of your eyes — the concentrated solar rays could damage the filter and enter your eyes, causing serious injury.

- Seek expert advice from an astronomer before using a solar filter with a camera, telescope, binoculars, or any other optical device; note that solar filters must be securely attached to the front of any telescope, binoculars, camera lens, or other optics

## Other safety considerations

- Dress for the elements. If Winter, early Spring or late Fall, it is best to dress as if the weather was ten degrees Celsius colder than it is. Also, keep in mind, near the darkest phases of the eclipse, the temperature will drop even more from losing the Sun’s warm rays. Dress in layers and have additional ways to keep you warm such as blankets, warm socks, boots, mitts and gloves, scarves, tuques, etc.
- Eclipse can last three or more hours from start to finish. Ensure you have plenty of fluids (warm beverages such as coffee or hot chocolate are great for cold weather). Have snacks and pick a viewing venue near facilities/washrooms.
- Make sure you are comfortable. Bring camping/folding chairs. Pick areas without mud or water puddles because if your feet and clothes get wet, the elements will cause immediate discomfort.
- Bring prescriptions with you if you view the eclipse away from home, as it may be several hours by the time you return because of the time observed and possible activities and traffic associated with a large public viewing.

# WHAT IS A SOLAR ECLIPSE?

## Eclipse Fun Facts- Western NB

Eclipse Start 3:22 PM  
Eclipse Maximum 4:33 PM  
Eclipse End: 5:41 PM  
Duration: 2 hours 18 minutes  
Totality: 3 minutes 20 seconds average (+/- 5 seconds depending on location)  
\*Times may vary by a 2-3 minutes based on location.

## Total Solar Eclipse

The Sun, Moon, and Earth must be in a direct line for a total eclipse to take place. The people who see the total eclipse are in the center of the Moon’s shadow when it hits Earth. The sky will darken as if it were twilight. Weather permitting, people in the path of a total solar eclipse can see the Sun’s corona, the outer atmosphere of the Sun. A total solar eclipse is the only type where viewers can watch without their eclipse glasses – and they can only remove them when the Moon is completely blocking the Sun. A phase called totality.

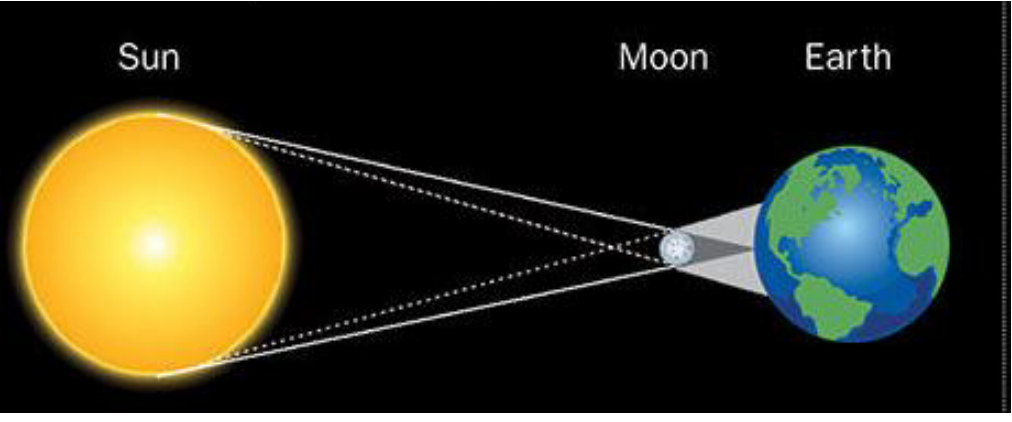
## Annular Solar Eclipse

It occurs when the Sun and Moon align with the Earth, but the apparent size of the Moon is smaller than that of the Sun. Hence, the Sun appears as a very bright ring surrounding the dark disk of the Moon.

## Hybrid Eclipse

Is a solar eclipse that shifts between a total and an annular eclipse. At certain points on the surface of Earth, it appears as a total eclipse, whereas at other points, it appears as an annular. Hybrid eclipses are comparatively rare..

## Total Solar Eclipse



Eclipses happen when one object in space passes through the shadow of another object in space. During a solar eclipse, the Moon passes between the Sun and Earth, blocking all or part of the Sun for the viewer

## DYK? (Did you know?)

- 2079 is the next time a path of totality from a Total Solar Eclipse
- will visit Southern New Brunswick.
- In about 600 million years, due to tides on Earth and the slowing down of the Earth’s rotation, the moon will be too far away from the Earth to cover the sun, thus ending total solar eclipses.
- The Moon as it moves across the Sun is approximately 2,250 km/hr. Planets and bright stars can be seen during totality.

Stay up to date with Eclipse NB 2024 at [www.eclipseNB2024](http://www.eclipseNB2024) and on Facebook and Instagram. For more information on astronomical products, services and astrotourism; please visit [www.cliffvalleyastronomy.com](http://www.cliffvalleyastronomy.com) or on Facebook and Instagram @CliffValleyAstronomy

