## Time Table for the Eclipse at Humbolt, Nebraska Partial eclipse begins 11:38:36 CDT Totality begins at 1:03:54 PM (13:03:53.8) Maximum Eclipse -1:05:12.1 PM Totality lasts 2 min 36 sec ! Totality Ends at 1:06:30.3 PM Partial ends at 2:32 PM CDT

On Monday Aug 21<sup>st</sup> the moon will pass in front of the Sun. All areas of mainland United States will see at least a partial Solar Eclipse. Person's along an approximately 70 miles wide central path will see a Total Solar Eclipse. As the shadow passes over Oklahoma it will be moving at 1,500 miles per hour!

**NASA Eclipse 2017 Live** - Viewers around the world will be provided a wealth of images captured from spacecraft, balloons and the International Space Station. **Note:** Internet coverage may be slow due to high demand during the eclipse.

**EYE PROTECTION is ESSENTIAL for all of the partial phases of the eclipse!** Even if only 10% of the sun is still visible it's still 100,000 times too bright for the unprotected eye. There is nothing Extra Dangerous about the sun during an eclipse. It's the same sun we see every day. Except during an Eclipse people want to see want is happening up there.

**Direct Viewing - Use only ISO Certified Eclipse Glasses** These have been tested to block 99.99% of visible light as well as harmful infrared and Ultraviolet.

SUN GLASSES and other dark materials are NOT SAFE !!!

- \*\*\* For younger children cut a hole in a sheet of cardboard large enough to cover their face and securely tape the eclipse glasses over the holes.
- Safety Tip: Turn Away from the Sun Put on the Eclipse glasses Then turn to face the sun. - - Turn Away from the Sun again - Before taking them off. \*\* Eclipse glasses and welder's lenses are not safe for telescopes and binoculars.

Other Safe Ways to observe the Partial Eclipse – Experiment with techniques before the eclipse day.

**1 Solar Projection –** Get **two Index cards** – Punch a small hole about 1/8 inch in one card. Stand with your back to the sun and hold the 2<sup>nd</sup> card in the shadow of the other.

You'll see an image of the sun projected on the card.

- \*\* DO NOT LOOK THROUGH THE HOLE AT THE SUN !
- 2 Hold a Kitchen Collander a foot or so above a white paper to see dozens of tiny eclipse images.
- 3 Mirror Projection cover a mirror with a dark stiff piece of paper. Cut a 1/4 to 1/2 inch hole in the paper. Project the sun's image onto a shaded wall or white paper a few feet away.
  Tip: Try positioning the mirror to shine through a N or S facing window
  - to cast the sun's image on a wall or ceiling.
- 4 Near Maximum Eclipse try to Chris-Cross your fingers and let the sun light filter through.

