cereal box eclipse viewer (Grades 3-12)

Nationwide Ballooning Eclipse Project Educational Outreach

**Subject Area:** Solar Eclipses

**Grades:** 3-12

**Student Learning Objectives:**

“I will learn about solar eclipses.”

“I will understand the dangers of staring at the sun during an eclipse.”

“I will learn to engineer a solar eclipse viewing box.”

**Teacher Modeling/ Demonstration:**

Explain the meaning of an eclipse/ how they occur. Tell students about the upcoming partial and total eclipses. Explain the ballooning project briefly. Explain how solar rays can damage the retina in the eyes, causing retinopathy. It is especially dangerous for children, as their eyes are more sensitive.

**Educator Development Resources:**

[What Is an Eclipse? | NASA](https://www.nasa.gov/audience/forstudents/5-8/features/nasa-knows/what-is-an-eclipse-58)

[Nationwide Eclipse Ballooning Project (NEBP) | Science Mission Directorate (nasa.gov)](https://science.nasa.gov/science-activation-team/nationwide-eclipse-ballooning-project)

[Safety | Eclipses – NASA Solar System Exploration](https://solarsystem.nasa.gov/eclipses/safety/)

[EclipseCerealBoxViewer.pdf](file:///C:\Users\Spare\Downloads\EclipseCerealBoxViewer.pdf)

**Materials:**

- Cereal boxes (collect them?)

-Aluminum Foil

-Masking Tape

-Black Pape

-Scissors

-White Printer Paper

**Activity: Cereal Box Eclipse Viewer**

1. Show the exemplar.

2. Hand out materials.

3. Show step-by-step how to construct the viewer, walk around to help if needed.

4. Once finished, explain how to use the viewer during the eclipse.