K-2 Lesson Plan

Nationwide Ballooning Eclipse Project Educational Outreach

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Subject Area: Solar Eclipses

Grades: K-2

**Student Learning Objectives:**

“I will learn about solar eclipses.”

“I will understand the difference between a partial and total eclipse. I will learn to explain and demonstrate this difference to others.”

“I will learn about the high-altitude balloon project.”

**Teacher Modeling/ Demonstration:**

Note: These students have rather short attention spans. Try to be as engaging as possible. Move around while speaking and ask questions for understanding. Instructor should explain, in basic terms, the rotation of the Earth. Explain gravity and its implications (It holds the Moon in position in Earth’s orbit). Explain that a solar eclipse happens when the moon is in a position to cover part of or all of the sun from being visible on Earth. (eg. The moon moves between the Earth and the Sun). Explain how a partial eclipse is different from a total eclipse. Demonstrate activity 1 to provide a visual model, then let them do it themselves. Next, explain the basis of the balloon project (ex. We are sending a giant balloon 120,000 feet in the air while the eclipses are occurring!) Once completed, move to activity 2.

**Educator Development Resources**:

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

**Materials:**

-Paper Plates (3 Per student)

-Writing Utensils (Crayons/Markers)

- Black Paper

-White Paint

-Paintbrush (2 Total)

-Small Star Stickers (150-200)

**Activity 1:**

1. Show exemplar and hand out materials.

2. Let students decorate 2 plates. One is the sun, the other the moon.

3. Go around the room and ask them to move the moon in front of the sun to show a partial and total eclipse.

**Activity 2**:

1. Show exemplar and hand out materials.

2. Take around a paintbrush to help apply paint to each student’s hand. Instruct them to press their hand to the paper to create their ‘balloon.’

3. Wash hands!

4. Allow students to decorate the sky around their ‘balloon’ with star stickers.  `