Build-your-own eclipse (Grades 3-5)

Nationwide Ballooning Eclipse Project Educational Outreach

**Subject Area**: Solar Eclipses

**Grades**: 3-5

**Student Learning Objectives:**

“I will learn about solar eclipses.”

“I will understand how solar eclipses occur due to the positions of the Earth, Moon, and Sun in the solar system.”

**Teacher Modeling/ Demonstration:**

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 covers the Sun from our view. Explain why eclipses are historically rare occurrences (Eg. The orbit of the moon is not perfectly circular/ it must line up in a perfect position/ etc.)

**Educator Development Resources:**

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

[Why seeing a solar eclipse is so rare - BBC Tomorrow's World - Bing video](https://www.bing.com/videos/search?&q=why+are+eclipses+so+rare&docid=607986847921554242&mid=B316297F22BA4E9C6C47B316297F22BA4E9C6C47&view=detail&FORM=VDRVSR&ajaxhist=0)

**Materials: Build-Your-Own Eclipse**

-Black Construction Paper

-Writing Utensils (Crayons or Markers)

-Paper Fasteners

-Premade/Cut Planets Sheet

**Activity:**

1. Show exemplar and hand out materials.

2. Instruct students to color their Sun, Moon, and Earth.

3. Instruct students to glue their Earth and Sun onto the black sheet of paper.

4. Instruct students to attach their Moon/path with their stud.

5. Allow students to demonstrate eclipses by tilting their moon around the Earth to block the sun.