



# DANCE OF THE EARTH, MOON, AND SUN

Grades 7-8 | 60 Minutes

## Program Overview

### Description

In this field trip, hands-on activities and planetarium dome models will help your students experience moon phases and eclipses to understand the “dance” of the Earth, moon, and Sun like never before. A short discussion on tides is included.

**Adult chaperones recommended: 2**

### Content Standards

Subject	Gr	Ohio Department of Education Standards
Earth/Space	7	The relative patterns of motion and positions of the Earth, moon and sun cause solar and lunar eclipses, tides and phases of the moon.

### Vocabulary

eclipse	revolution
force	rotation
lunar	solar
penumbra	umbra
plane	

### Books we recommend

- Our Moon: New Discoveries About Earth's Closest Companion by Elaine Scott. Clarion Books, 2016
- Space Encyclopedia: A Tour of Our Solar System and Beyond by David Aguilar. National Geographic Kids, 2013.

## Post-Trip Activities

- Use flashlights and tennis balls to visually recreate an eclipse.
- Use data to observe what phase the moon is in that day. Use a model to demonstrate the position of the moon and sun.

## Other Resources

NASA homepage for all things eclipses: <https://solarsystem.nasa.gov/eclipses/home/>

Online Moon phase simulator from University of Nebraska-Lincoln:

<https://astro.unl.edu/naap/lps/animations/lps.html>