



One World, One Sky (Pre-K)

DESCRIPTION

When the lights go down, the “stars” will shine inside the Nathan & Fannye Shafran Planetarium. The concepts of day and night will become clearer as students observe sunrise and sunset within the Planetarium. Students will be delighted to see Sesame Street characters Big Bird and Elmo enjoy an imaginary and interactive trip to the Moon.

OBJECTIVES

- Observe how a planetarium can show the movement of the Sun, the Earth, and other objects in space
- Understand that we live on planet Earth and that Earth’s rotation causes day and night
- Discover how the Planetarium was designed as an astronomical instrument to locate Polaris, the North Star

OHIO’S LEARNING STANDARDS

PRE-K

Science: Science – Science Inquiry and Application

- Explores and investigates objects and events in the environment
- Develops ability to reason about cause and effect

KINDERGARTEN

Science: Earth and Space Science – Daily and Seasonal Changes

- K.ESS.1: Weather changes are long-term and short-term.
- K.ESS.2: The moon, sun and stars are visible at different times of the day or night.





Before your Program

At the museum (in house) programs:

If this will be your first trip to the Museum for some of your students, you may want to discuss the following questions:

- What is a Museum? Why are we going to the Cleveland Museum of Natural History?
- How should we handle objects at the Museum?
- Use the vocabulary and additional resources provided in this Teacher Guide to preview or review program content with your class.

VOCABULARY

astronomer – a scientist who studies space

astronaut – a scientist trained to make flights in space and conduct research about it

axis – an imaginary line around which a body moves; the Earth rotates on its axis once every 24 hours

constellation – an imaginary picture drawn on the sky to show a group of stars

day – the period of light between dawn and nightfall or sunrise and sunset

Earth – the name of the planet on which we live

gravity – the invisible force of attraction of a celestial body upon objects at or near its surface, drawing them toward the body

Moon – the satellite of Earth made of rock

night – the period of darkness between sunset and sunrise

orbit – the path of a celestial body as it revolves around another body; the Earth orbits the Sun

planet – a body of rock or gas that orbits the Sun and reflects its light

planetarium – a room or building containing a special projector for showing images of celestial objects

Polaris – the name given to the North Star

revolution – orbital motion about a point; the Earth revolves around the Sun





rotate – to turn around an axis or center

solar system – the Sun and all the celestial bodies that orbit around it

space – the area in which our Earth, the Sun, the Moon and the stars exist

Sun – the name of the star closest to the Earth

telescope – an instrument used for viewing distant objects

ONLINE RESOURCES FOR TEACHERS AND STUDENTS

Click the link below to find additional online resources for teachers and students. These websites are recommended by our Museum Educators and provide additional content information and some fun, interactive activities to share with your class.

CMNH Educators regularly review these links for quality. Web addresses often change so please notify us if any links have issues.

[Shafran Planetarium & Mueller Observatory](#)

