

# Look Up!

## Grade K-1

### Teacher's Guide



Lake Erie Nature & Science Center

### Description

Your students will explore what is in the sky during the day, at night, and during the different seasons in this exciting planetarium field trip. We will model the movement of the sun and the phases of the moon and explore tonight's sky!

**Length:** 30 minutes. **Adult chaperones recommended:** 1

### Content Standards

Subject	Gr	Standard	Objective/"I can" Statements
Earth/Space	K	The moon, sun and stars can be observed at different times of the day or night.	I can observe the moon, sun and stars at different times of the day and night.
Earth/Space	1	The sun is the principal source of energy.	I can identify the sun as the source of energy on Earth.

### Pre-Trip Activities

- Read a story that reinforces that the moon is visible at night and sometimes during the day and the visible part of the moon changes throughout the month.
- Discuss how the sun changes position in the sky during the day.

### Vocabulary

phase  
moon

stars  
sun

### Books

- Moonfinder by Jay Ryan. Fourth Day Press, Cleveland, OH, 2011.
- The Sun by Ralph Winrich. Capstone Press, 2008.
- What Makes Day and Night by Franklyn Branley. Harper Collins, 1986.

## Post-Trip Activities at School

Experiment with shadows from the sun. Questions to explore include: What happens to a shadow throughout the day? Can the length of a shadow be measured? How does the shape of the shadow change? Can shadows be made inside? Use light bulbs, overhead projectors, virtual investigations or combinations of the above to explore inside shadows

## Extension Activities

- As a class, design and make a sun garden. The garden may contain rocks or other objects that reflect or react to sunlight, such as sundials, solar powered lights or chimes that require sunlight for movement.
- Make a table or chart to document the changes in the observable (lit) part of the moon throughout a month. Compare the differences throughout the month and then determine if the same pattern exists the next month.
- Collect and record sun-shadow data on a regular basis throughout the school day and school year. Interpret the changes (length, position) in the shadows. Discuss the changes that are observed, the relationship between the changes in the shadows, and the different positions of the sun during the day and in the different seasons. Present findings orally and/or graphically.