



REASONS FOR THE SEASONS

Grade 5 | 60 Minutes

Teacher's Guide

Description

In this planetarium-based field trip, students will explore the planetary reasons for the seasons.

Adult chaperones recommended: 4 – 6

Content Standards

Subject	Gr	Standard	Objective/"I can" Statements
Earth/Space	5	<ul style="list-style-type: none">The sun is one of many stars that exist in the universe.Most of the cycles and patterns of motion between the Earth and sun are predictable.	I can explain that the earth, moon and sun move in predictable cycles and explain how they contribute to the seasons on Earth. can observe the moon, sun and stars at different times of the day and night

Pre-Trip Activity

Build sundials out of everyday materials.

Vocabulary

axis	revolution
climate	rotation
latitude	season
orbit	

Book

Secrets of the Seasons: Orbiting the Sun in Our Backyard by Kathleen Weidner Zoehfeld. Random House, 2014.

Post-Trip Activities at School

Have students represent the sun, moon and Earth and their orbits graphically and to scale. Use actual data and measurements for the representation.

Extension Activities

- Solar energy collection is most effective in areas that receive direct sunlight for long periods of time. Explore and Explain why solar panels would be a good idea or not based on your location. Resource:
 - The National Atlas mapping project provides maps that show areas within the United States that are effective in generating solar energy. This can be a starting resource for the Designing Solutions section listed in the classroom examples.
- Use fractions lessons related to the seasons to calculate the amount of direct sunlight that different parts of the Earth receive during different seasons.