



WEATHER AND CLIMATE

Grades 1 – 3 | 90 Minutes

Program Overview

Description

Why does our weather constantly change? In this field trip students will participate in hands-on weather demonstrations and use tools to observe and record current weather conditions. *Available during the school year in the months of September, October, April or May.*

Adult chaperones recommended: 4

Content Standards

Subject	Gr	Ohio Department of Education Standards
Earth Science	1	<ul style="list-style-type: none">• The sun is the principal source of energy.• Water on Earth is present in many forms.
Earth Science	2	<ul style="list-style-type: none">• The atmosphere is primarily made up of air.• Water is present in the atmosphere.• Long- and short-term weather changes occur due to changes in energy.
Earth Science	3	<ul style="list-style-type: none">• Earth's nonliving resources have specific properties.• Earth's resources can be used for energy.• Some of Earth's resources are limited.
Climate Literacy Principles	4.	Climate varies over space and time through both natural and man-made processes.

Vocabulary

atmosphere	liquid
barometer	molecule
cirrus	oxygen
climate	precipitation
condensation	solid
cumulus	water vapor
drought	weather
evaporation	wind
gas	

Books we recommend

- Weather Words and What they Mean by Gail Gibbons. Holiday House, 1990.
- What is a Forecast? By Jennifer Boothroyd.
- Lerner Publishing Group, 2015.

Post-Trip Activities

- Design and construct an instrument that can measure wind speed and wind direction, such as an anemometer. Test the accuracy of the anemometer by comparing to actual wind speed.
- Build a model (kit) that can collect or use solar energy (such as a solar oven, solar wind chimes or solar water heating devices).
- Design and construct a terrarium that is enclosed and has soil, plants and water. Observe the effects of the sun on evaporation, condensation and the air and water temperatures.

Other Resources

How to make an anemometer.

https://www.nasa.gov/sites/default/files/atoms/files/build_an_anemometer.pdf

How to make a solar oven.

<https://climatekids.nasa.gov/smores/>

How to plant a mini garden.

<https://climatekids.nasa.gov/mini-garden/>

How to plant a terrarium.

<https://www.pbs.org/parents/crafts-and-experiments/plant-a-terrarium>