



Family Fun Activities and Investigations

Visit the following places to experience hands-on science:

Maryland Science Center
601 Light Street
Baltimore, MD 21230
410-685-5225

Science on a Sphere

www.mdsci.org/shows/scienceonasphere.html

Exhibit: Terralink

<http://www.mdsci.org/exhibits/terralink.html>

Smithsonian Institute
Washington, D.C.
202-633-1000

National Air and Space Museum
<http://www.nasm.si.edu/>

The Franklin Institute
222 North 20th Street
Philadelphia, PA 19103
215-448-1200
www.fi.edu



Career Connections

Take a few minutes to discuss, with your child, these different career opportunities in physical science.

Meteorologist

Meteorologists investigate the forces that shape weather and climate, and how human activities can affect climate.

Geoscientist

Geoscientists study the composition, structure, and other physical aspects of the Earth. They study the Earth's geologic past and present. They work in preserving and cleaning up the environment.

Physicist

A scientist who studies the science concerned with the interaction of matter and energy.

Astronomer

Astronomers use the principles of physics and mathematics to learn about the fundamental nature of the universe. They also apply their knowledge to solve problems in navigation, space flight, and satellite communications.

Prepared by

Office Of Science, Pre K–12

Mr. Thomas P. Michocki, Director

A Parent's Informational Guide to the Science Unit

WEATHER THE WEATHER

STEM Science Unit



Grade 5



WEATHER THE WEATHER

STEM Science Unit

This is a fifth grade unit designed to help students learn the history and science of meteorology from "weather lore" to modern meteorological instruments. Students will investigate the interactions of the hydrosphere and atmosphere by engaging in hands-on exploration activities. They will have the opportunity to build primitive weather instruments including; barometer, psychrometer, rain gauge, thermometer, and wind vane. Students will recognize and describe the atmospheric conditions related to weather changes. Students will use electronic data acquisition tools to collect real-time data about weather conditions. Students will have the opportunity to apply weather knowledge by reporting daily weather data.

The Maryland Voluntary State Curriculum Indicators addressed in this unit are listed below:

Earth/Space Science- Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces and cycles, transfer of energy) of the environment, Earth, and the universe that occur over time.

E. Interactions of Hydrosphere and Atmosphere

Recognize and describe that the amount of water on Earth continues to stay the same even though it may change from one form to another.

Recognize and describe the atmospheric conditions related to weather changes.



Unit Vocabulary

Encourage your child to use the vocabulary listed below when telling you about what they are learning during this science unit.

Atmosphere

the gas that surrounds the Earth

Barometer

a weather instrument that measures air pressure

Compass

a navigational instrument for finding directions

Condensation

the process of changing from a gas to a liquid

Evaporation

the process of changing from a liquid to a gas

Humidity

water vapor in the air

Meteorologist

a scientist who studies and predicts the weather

Meteorology

the science of studying the earth's atmosphere and weather

Precipitation

water that falls to the Earth's surface

Psychrometer

an instrument that measures relative humidity

Rain gauge

an instrument used to measure precipitation

Temperature

a measure of how hot or cold a substance is

Thermometer

an instrument that is used to measure temperature.

Troposphere

the lowest level of Earth's atmosphere

Water cycle

the change of water from one state to another as it moves between Earth's surface and the atmosphere

Wind vane

an instrument that determines the direction from which the air is moving



Books to Read



Take some time to read books about weather with your child. Books on this topic can be found in the non-fiction section of the library with the call numbers 551. You can also find books on this topic in the children's section of your school and public library.

How's the Weather by Melvin Berger

Magic School Bus Kicks Up a Storm:

A Book about Weather by Joanna Cole

Weather Explained: A Beginners Guide to the Elements by Derek Elsom

Weather by Seymour Simon

Weather (Discovery Series) by David Ellyard

Weather (DK Eyewitness Series)

by Brian Cosgrove

Internet Sites



Web Weather for Kids

<http://eo.ucar.edu/webweather/>

Learn about weather safety, play games, read stories, and try weather investigations. Offers tips for forecasting the weather.

Weather Wiz Kids

<http://www.weatherwizkids.com/index.htm>

Meteorologist Crystal Wicker designed this website to teach children more about weather. This website offers information about current weather events around the world.

Franklin's Forecast

<http://www.fi.edu/weather/>

Make you own weather station, check the current weather, and learn how to read radar images. Track lightning, view satellite images, and make career connections.

Playtime for Kids

<http://www.nws.noaa.gov/om/reachout/kidspage.shtml>

Help kids learn hurricanes, winter storms, thunderstorms, and other severe weather. Check out "Other Fun Stuff" for interesting activities.