



Weather – Tornadoes & Clouds

Focus: Meteorology **Grades:** suggested for all grade levels

Background

The purpose for the weather demo is to introduce students to the field of meteorology. Students are asked if they know what a meteorologist is and what they do. The students are introduced to a meteorologist and they then explain the nature of the lesson. Tornadoes, hurricanes, clouds, seasons etc.

Objectives

Students will establish a regular pattern of observing the weather.

Children will explore the local environment.

Students will perceive changes in familiar locations.

Students will be able to describe in their own words the process that takes place when the weather changes.

Students will become aware of changes in daily activities due to seasonal transitions.

Learning outcomes

Learning outcomes from this lesson parallel the 4th grade Ohio proficiency test.

- Select instruments, make observations, and/or organize observations of an event, object, or organism.
- Identify and/or compare the mass, dimensions and volume of familiar object in standard and/or non-standard units.
- Analyze a series of events and/or simple daily or seasonal cycles and predict the next likely occurrence in the sequence.
- Evaluate a simple procedure to carry out an exploration.
- Identify and/or discuss the selection of resources and tools used for exploring scientific phenomena.
- Demonstrate an understanding of safe use of materials and/or devices in science activities.
- Identify characteristics of a simple physical change.



Lesson 1 : Tornadoes

Define tornado :

A tornado is a violently rotating column of air extending from a thunderstorm to the ground.

Discuss the level of the tornado.

(see Fujita Scale below)

What to look for when tornados are in your area.

Dark greenish sky

Large hail

Loud roar; similar to a freight train

Wall cloud

Tornado Safety procedures:

Develop a plan to take cover.

Practice the plan frequently.

Listen to your local news station for update in the weather.

Have fresh batteries in your flash lights in case of power failure.

Take shelter, somewhere safe in your home or office.

Assume the tornado position (see picture)

Who is at risk.

People in cars.

People with physical handicaps.

People in mobile homes.

People with a language barrier.



These Tornadoes are rated on the Fujita Scale

F0



F1



F2



F3



F4



F5



Lesson 2: clouds

Define clouds :

Clouds are made up of tiny water droplets or ice crystals that are formed from condensing water vapor, an odorless, tasteless gas.

Discuss types of the clouds, see website below.

<http://www.colby.edu/cpse/equipment2/highclouds/high.html>

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