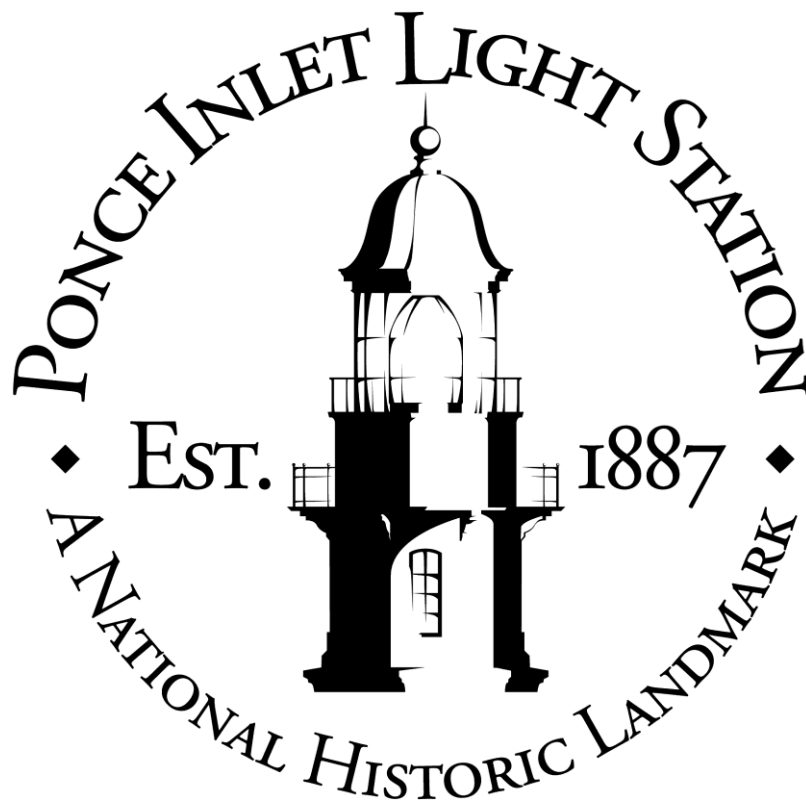


Lighthouse Weather Station Focus Unit



Developed by the
Ponce de Leon Inlet Lighthouse
Preservation Association

Title: Make Your Own Weather Station

Subjects: Science, Math, Language Arts, Social Studies

Duration of Activity: 2-3 Weeks

Materials:

1. 1 Wooden Crate or Plastic Box
2. Latex paints
3. Paint Brushes
4. Weather Log
5. 5 accompanying weather instrument lesson plans
6. Outdoor thermometer (included in library box supplies)
7. Compass (included in library box supplies)

Teacher Notes:

The weather station box will house all of the instruments that the class will build for their weather station. If box is wooden, a plastic sheet (such as a large trash bag) is recommended to waterproof it.

Procedures:

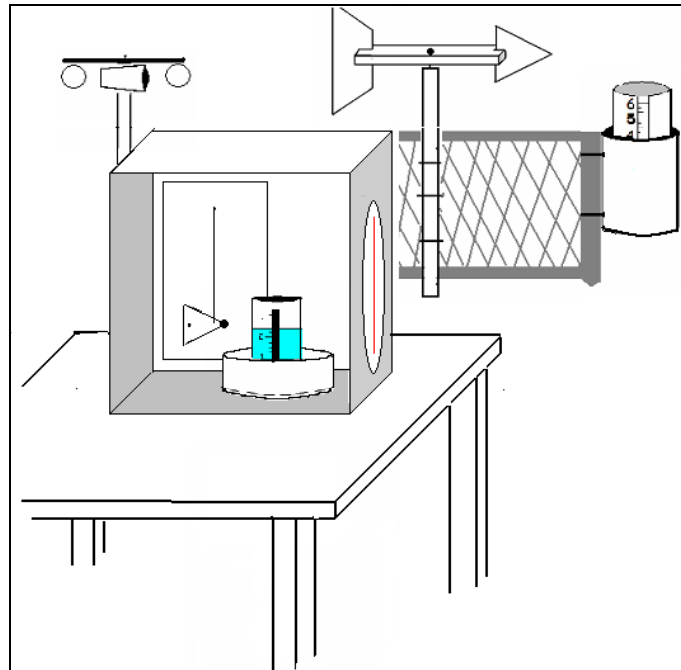
Construction and Installation:

1. Read "Monitoring Weather at the Lighthouse" with class.
2. Choose additional articles from the back of the weather unit binder to share and discuss with class.
3. Inform students that they will be constructing their own weather station and, like the historic keepers at the Ponce de Leon Inlet Light Station, recording weather data and generating forecasts each day.
4. Decorate weather station box using paints as desired. (A light color is preferable to minimize chances of false temperature readings due to heat absorption of dark colors.)
5. Identify a secure location outside that is free from overhead obstructions and away from any buildings that block the wind, rain, etc. and provide false instrument readings.
6. Place the weather station box on a level surface with the open side facing out.
7. Place completed barometer, hydrometer, and thermometer inside of box. Attach rain gauge to outside of box. Install anemometer and weather vane close to the location of the weather box.

Activity Procedures:

1. Students will take weather instrument readings at approximately the same time every day.
2. Students will record their readings in the weather log and set instruments up for next day. (i.e. empty rain gauge after measuring precipitation, etc.)
3. Students will present findings to class and discuss what each measurement means.

4. Students will analyze weather station data and make predictions regarding the following day's weather forecast. Write the next day's forecast in the forecast space provided on the next day's line.
5. Students will look at the present day's forecast in the newspaper and compare the official forecast with their previous forecast. Discuss accuracies and inaccuracies between the two.
6. Students will discuss the overall activity when it has concluded and write a short summary of their experience including suggestions for future classes. The class summary will be filed behind their weather data log sheet in the library box's Weather Log Binder.



Enrichment Activities:

- Research weather online (See website listings on individual lesson plans contained within this unit)
- Create a weather bulletin board.
- Conduct additional science experiments regarding weather and the water cycle.
- Maintain a hurricane tracking map during hurricane season.

MONITORING WEATHER AT THE LIGHTHOUSE

Sometimes, the weather at the Ponce de Leon Inlet Light Station can be extreme. Did you know that the original lighthouse at Mosquito Inlet was destroyed by a hurricane? It's true!

The inlet's original 40 foot tall tower was struck by a hurricane in November, 1835. The storm's violent tidal surge washed away much of the beach, undermined the lighthouse, and forced the keeper's family to run for their lives as their home was washed



out to sea. Unable to repair the tower due to the outbreak of Second Seminole War the lighthouse eventually fell into the sea a few months later.



Hurricanes are not the only weather conditions experienced at the inlet. Dangerous thunderstorms are common to this area as well. Lightning, which is generated by the collision of warm and cold air within the towering cumulonimbus clouds, strikes the tower on numerous occasions throughout the year. Waterspouts (tornadoes over the water) have even been recorded at the inlet on more than one occasion.

The lighthouse keepers at Ponce Inlet have observed and recorded the weather in their logbooks every day since the Station opened in 1887. The early keepers did not always use instruments to measure the weather. Instead, they made more casual descriptions such as "Fair, light wind from the south, hot." A real weather station was installed at the top of the lighthouse after the Coast Guard took over the light station in 1939. Observations were recorded in the daily logs and relayed by telephone to the Coast Guard Station on the south side of the inlet.

Now that the lighthouse is a private aid to navigation managed by the Ponce de Leon Inlet Lighthouse Preservation Association, the museum's staff continues the practice of recording each day's weather. A new weather station was installed atop the First Assistant Keeper's Woodshed and Privy in the fall of 2006. Every morning, a member of the Lighthouse staff takes a weather reading and records the data in the weather log, thus continuing the light station's long history of weather surveillance.

Weather conditions measured at the Ponce Inlet Lighthouse on a daily basis include:

- **Temperature** - The sun warms the air, land, and oceans. Land and water retain heat and continue to heat the atmosphere after the sun disappears. The air temperature is measured with a *thermometer*.
- **Barometric Pressure** - The atmosphere pushes down on the surface of the earth with an average force of 15 pounds per square inch. This pressure changes when weather conditions alter the density of the air. Cool air weighs more than warm air, generating high pressure systems. Warm air masses form low pressure systems. Moist air is less dense than dry air and is associated with lower pressure. In general, weather improves when the pressure increases and gets worse when pressure drops. Pressure is measured with a *barometer* and is expressed in millibars.
- **Humidity** - This is the amount of moisture in the air and is measured with a *hygrometer*. Relative humidity is a measurement of the amount of water in the air compared to the amount of water the air can hold at the temperature it happens to be when the measurement is taken.
- **Wind Speed and Direction**- Wind speed is measured with an *anemometer*. Wind direction is measured with a *wind vane*.
- **Rainfall** - *Rain gauges* can be as simple as a cup with a ruler to show rain amounts.

Weather Station Focus Unit

Lesson 1

Title: Make Your Own Barometer

Subjects: Science, Technology, Math,

Duration of Lesson: 1 Day (construction) 1-2 weeks (maintaining weather station)

Materials:

1. Coffee can
2. Heavy duty plastic wrap or rubber sheet
3. 3 or 4 large heavy duty rubber bands
4. Index card
5. Waterproof tape (duct tape, packing tape, electrical tape)
6. Ruler
7. Plastic straw
8. Fine tip permanent marker

Teacher Notes:

Ensure students are familiar with the scientific principles regarding barometric pressure and its characteristics regarding high and low pressure zones in relation to weather.

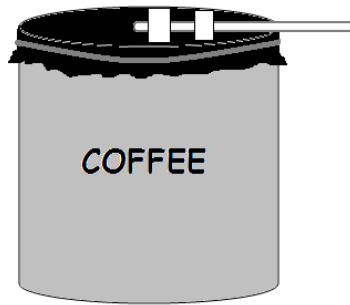
-A decrease in air pressure often indicates the approach of a low pressure area that often brings clouds and precipitation. Increasing air pressure often means a high pressure area is approaching, bringing clear or fair weather.

Procedures:

1. Stretch plastic wrap over the top of the coffee can and secure to coffee can rim with several strong rubber bands. Make sure plastic wrap is tight by pulling edges down around outside of can. There can't be any air leaks.



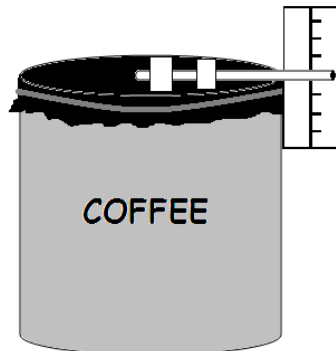
- Use tape to secure one end of the straw to the center of the plastic sheet. Part of the straw should stick out over the edge of the can. The sheet should be very tight.



- Fold index card in half. Position card on a flat surface with the fold to the left and draw a vertical line down center of one half of folded card. Draw 1", $\frac{1}{2}$ ", and $\frac{1}{4}$ " hash marks on line using a ruler as a guide.



- Tape index card on the side of the can behind straw with one half of card extending above rim of can.



- Set can on a flat surface outside. As the barometric pressure changes, the plastic sheet will either dip into the can slightly, or bulge out. This moves the end of the straw up or down. The tip of the straw will rise when barometric pressure increases and fall when pressure decreases.
- Read barometer at approximately the same time every day and record change in pressure in weather log. Use readings to predict the weather. Changes in barometric pressure help forecast the weather. Decreasing air pressure often indicates the approach of a low pressure area that often brings clouds and precipitation. Increasing air pressure often means a high pressure area is approaching, bringing clear or fair weather.

Weather Station Focus Unit

Lesson 2

Title: Make Your Own Hygrometer

Subjects: Science, Technology, Math, Language Arts

Duration of Activity: Construction: 1 Day, Activity 2-3 Weeks

Materials:

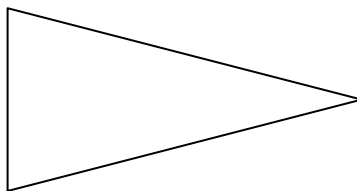
1. scrap piece of wood or Styrofoam for the hygrometer back plate (12" long x 6" wide)
2. piece of flat plastic (such as a plastic folder cover)
3. 2 small nails
4. 3 strands of human hair approximately 12 inches long
5. a dime
6. glue
7. tape
8. hammer
9. scissors or shears (strong enough to cut plastic)

Teacher Notes:

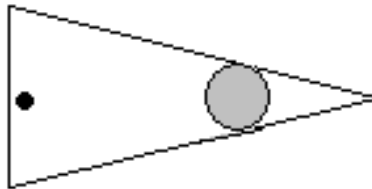
- Ensure students are familiar with the scientific principles regarding humidity and the water cycle.

Procedures:

1. Draw a small triangle (approximately 3" long and 1.5" wide) on the plastic and cut out with the scissors.

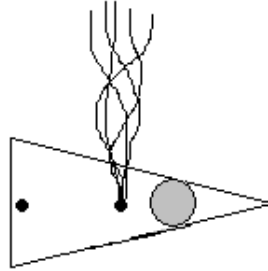


2. Tape the dime near the point of the triangle using tape. The hydrometer will be outside for an extended period of time, so make sure the dime is securely fastened to the plastic triangle.



3. Poke one of the nails through the plastic pointer about half an inch from the edge of the triangle's base. Wiggle the nail until the pointer moves freely and loosely around the nail.

4. Glue one end of each hair strand to the plastic pointer halfway between the nail hole and the dime so they form a string.

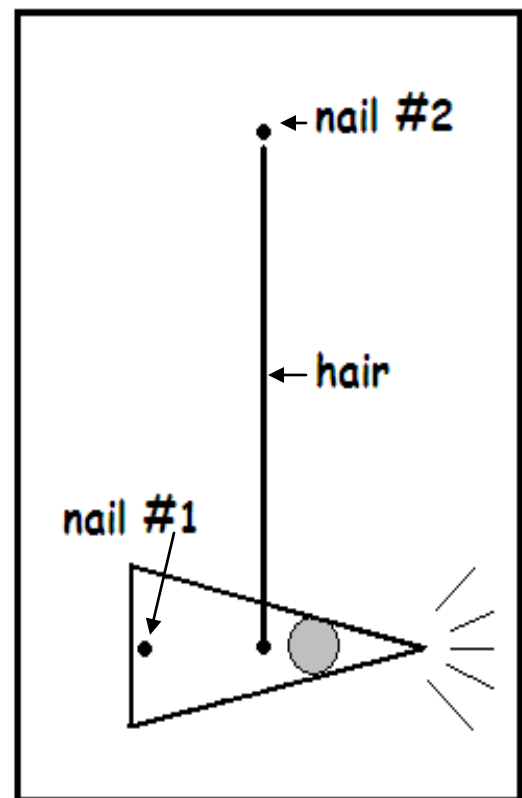


5. Position the pointer horizontally in the middle of the back plate and attach it to the plate with the nail through the nail hole. The pointer must be able to turn freely around the nail for hydrometer to work properly.

6. Position the pointer on the board so that the base of the triangle is parallel with the left side edge of the board. Insert a second nail approximately 6 inches above the center point where hair is glued to the triangle. Make sure the distance between the top nail and the middle of the pointer is less than the length of the shortest strand of hair.

7. Holding the pointer down on the board with one hand so that it does not move, pull the hair strands straight and tight. After ensuring that the base of the pointer is still parallel to the left edge of the board, glue the hair to the second nail and secure with tape until dry. Trim excess hair as necessary. Remove tape when glue has dried.

8. Using a permanent marker, draw 5 small lines on the board at the tip of the pointer at 0, 15, 30, 45, -15, -30, & -45 degrees. You will use these increments to measure humidity and determine any changes that may have occurred.



9. Mount hygrometer outside in a vertical position to minimize friction on the pointer. Check the changes in humidity every day at approximately the same time. Record your finding and report changes in humidity in the weather log.

Note: Hair's reaction to changes in humidity is the reason this hygrometer works. The string of hair attached to the nail and pointer will expand and lengthen when it is humid out, making the pointer go down. When the air is dry, the hair will contract and shorten, making the pointer point up. In other words, the pointer will point up on dry days, and down on humid days.

Weather Station Focus Unit

Lesson 3

Title: Make Your Own Rain Gauge

Subjects: Science, Technology, Math, Language Arts

Duration of Activity: Construction: 1 Day, Activity 2-3 Weeks

Materials:

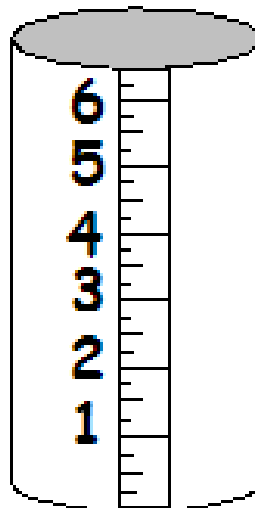
1. a narrow glass jar with straight sides (such as an olive jar)
2. a fine tipped permanent marker
3. a wooden stake or pole (a fence pole works very well if one is located nearby)
4. masking tape
5. ruler
6. 2 large zip ties
7. 1 empty soup can with a wide enough diameter to allow the jar to sit inside of it.
8. can opener with church key

Teacher Notes:

- Ensure students are familiar with the scientific principles regarding precipitation and the water cycle.

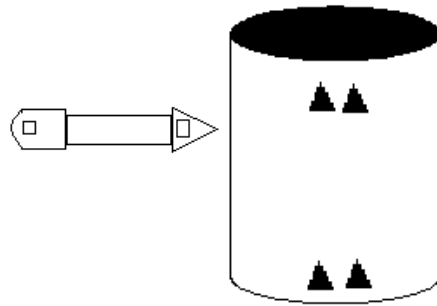
Procedures:

1. Affix a strip of masking tape vertically on the outside of the jar from top to bottom. Create a graduated scale with permanent marker using ruler starting at the bottom. Create marks in 1", $\frac{1}{2}$ ", and $\frac{1}{4}$ " increments.



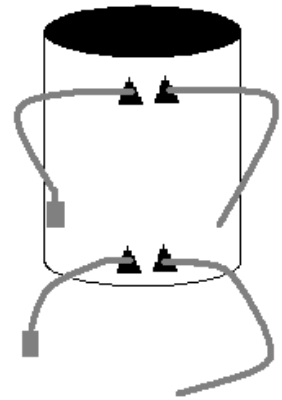
2. Remove top of can with can opener and wash thoroughly. Remove label.

- Punch two holes a $\frac{1}{2}$ inch apart on the side of the can at the top and bottom using the church key.

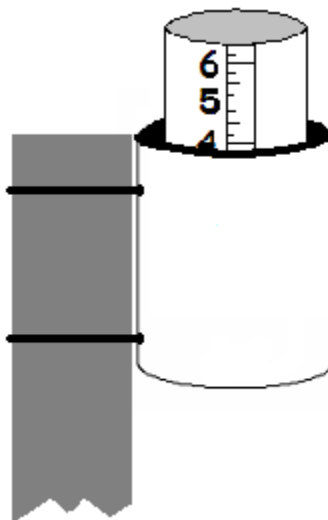


- Locate a good place for your weather station. There should be nothing overhead such as trees, roofs, electric wires, etc. that can direct rainwater into or away from your gauge and result in false readings.

- Once you have identified a good location for your weather station, drive a wooden post/stake into the ground and adjust until plumb. (*A hurricane fence post is an excellent location but make sure the rain gauge is located at the top of the fence or false readings may occur.*) Attach the can (open side up) to the top of the post using the two zip strip ties. Thread each zip strip through the pair of holes on the side of the can. Wrap the two ends of the zip strip around the pole and pull tight.



- Insert rain gauge jar into can and check daily for precipitation. Empty jar after each reading and record precipitation measurements in the weather log.



Weather Station Focus Unit

Lesson 4

Title: Make Your Own Weather Vane

Subjects: Science, Math, Language Arts

Duration of Activity: Construction: 1 Day, Activity 1-2 Weeks

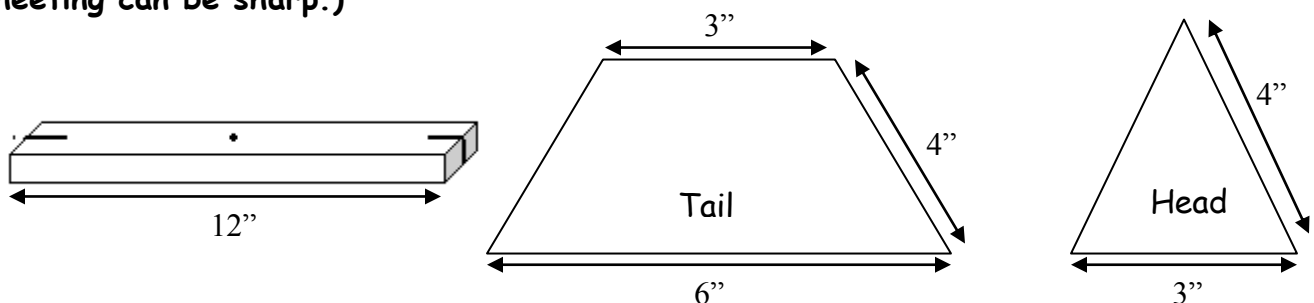
Materials:

1. Long wooden dowel rod (such as a broom handle)
2. 2" long wire nail with head
3. Hammer
4. Drill with 1/16 inch bit (check Maintenance Dept.)
5. Aluminum baking pan (such as a turkey pan) or a flat sheet of plastic (such as the cover of a plastic folder)
6. Scissors
7. Permanent marker
8. Ruler
9. Zip Strips (3)
10. White glue
11. Saw (check Maintenance Department)
12. Compass
13. Wooden paint stick

Procedures:

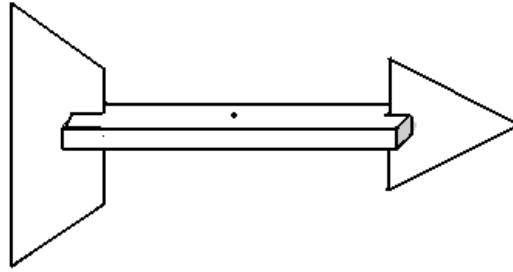
Prior to Lesson:

1. Cut a 1 inch slot in both end of the paint stick (ask your maintenance department for help if needed).
2. Drill a 1/8 inch hole through the center of the paint stick.
3. Draw a weathervane's tail and head on the aluminum pan or stiff plastic sheet with the permanent marker. Cut out the head and tail with the scissors. (**CAUTION: Thin aluminum sheeting can be sharp.**)

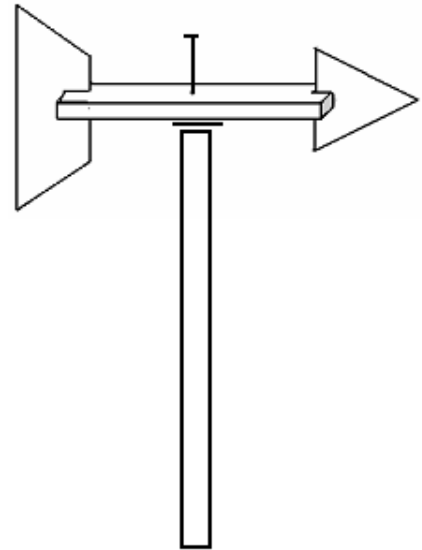


Classroom Procedures :

1. Attach the weathervane's tail and head to the wood strip by inserting them into the slots located at either end. Inject glue into slots to secure in place. Set aside and allowed to dry.

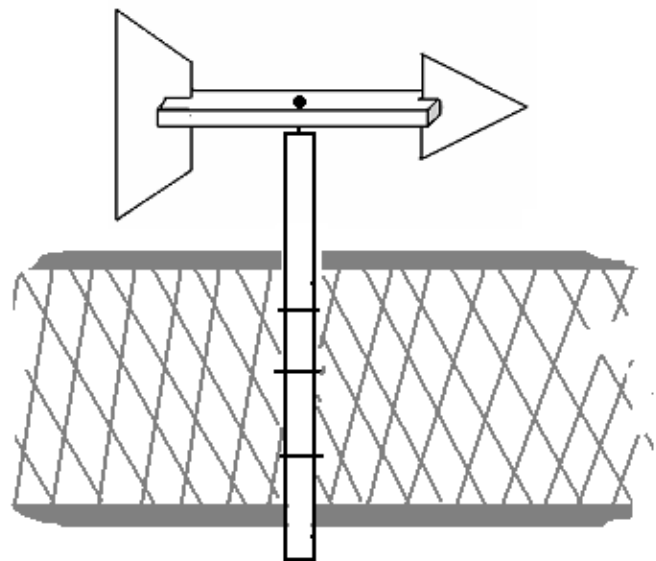


2. Attach the weather vane to the dowel rod by placing the washer on the end of the dowel rod and then hammering the nail through the previously drilled hole and the center of the washer and into the squared end of the dowel rod. Do not drive the nail in so far that it binds the weather vane from spinning freely.



3. Mount the weather vane next to your rain gauge using a zip strip at the top, middle and bottom of the dowel rod (a hurricane fence should provide the most secure location). Ensure the area is away from any obstacles that could block the wind or prevent the weather vane from making a complete 360 degree revolution to avoid inaccurate readings. *Note: Make sure the weather vane is plumb if you plant it in the ground.*

4. Measure wind direction daily using the compass. *(The head of the weather vane should point into the wind.)* Record your findings in the weather log along with the other weather station readings.



Weather Station Focus Unit

Lesson 5

Title: Make Your Own Anemometer

Subjects: Science, Technology, Math, Language Arts

Duration of Activity: Construction: 1 Day, Activity 2-3 Weeks

Materials:

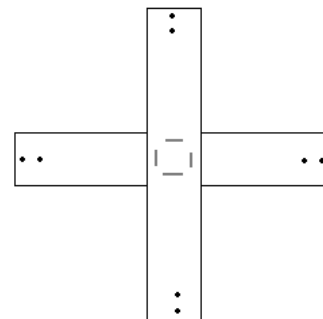
1. large Styrofoam produce tray (minimum dimensions 10" x 6")
2. pencil
3. scissors capable of cutting Styrofoam
4. single hole punch
5. 7 wire twist ties
6. 4 small plastic (or waxed paper) cups.
7. $\frac{1}{4}$ inch balsa dowel rod 12 inches long
8. round head wire nail
9. hammer
10. stapler
11. watch with a second hand

Teacher Notes:

- An anemometer is a device that tells you how fast the wind is blowing. The device you can build is a model of a wind speed indicator. The real one will be able to accurately measure how fast the wind is blowing. Yours will only provide an approximate measurement of wind speed in revolutions per minute.

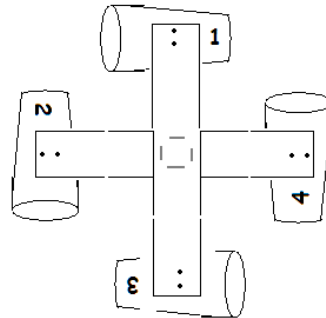
Procedures:

4. Draw two rectangles measuring 10 inches long and 3 inches wide on the bottom of the vegetable tray. Cut out both rectangles and place them perpendicular to each other at their midpoints. Staple the two pieces together to form a square cross.
5. Using the single hole punch, create two holes at the end of each arm of the Styrofoam cross.
6. Using the single hole punch, create two holes halfway down the side of each cup, one next to the other, with the same spacing between each hole as there is between the two holes on each arm of the cross.





- Secure one cup to the bottom of each cross arm using the twist ties and the previously made holes. The mouth of all the cups should face to the left on the cross arms. Number cups 1 through 4 with marker.



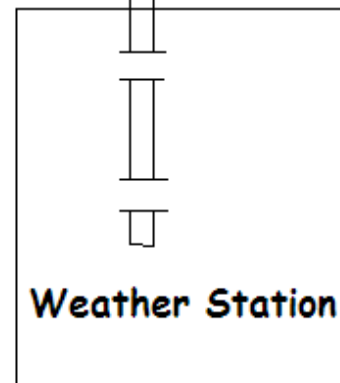
- Secure the anemometer on top of the dowel rod with the small nail. Drive the nail directly into one end of the rod leaving just enough space to allow the anemometer to spin freely.

- Cut two sets of horizontal slits in the side of the weather station box 6-8 inches apart. Thread dowel rod through slits to secure to weather station box.



- Place weather station box outside in a location that is free from any obstructions that may block wind such as buildings, bushes, trees, etc.

- Measure wind speed daily by holding the anemometer with the #1 cup facing you and letting it go. Count the number of revolutions the anemometer makes in 60 seconds using a watch. Stop the anemometer at exactly 60 seconds and look at the cup that is facing you.



If you are holding cup number 3 and the anemometer made 20 complete revolutions in 60 seconds, the wind speed is $60 \frac{1}{2}$ rpm's (Revolutions per Minute). Record these readings in the weather log along with the other weather station measurements.

Weather Station Focus Unit

Lesson 6:

Title: Cloudy Day Weather Forecast

Subjects: Language Arts, Technology, Social Studies, Science

Learner Outcomes:

Students will be able to identify the 10 types of clouds and discuss weather conditions associated with each. Students will predict weather conditions by observing clouds.

Duration of Lesson: Instruction 1 day, Activity 2 weeks.

Materials:

1. "Meet Clouds by Name" Handout
2. Cloud Classification Overhead Slides
3. Student Cloud Classification Handout
4. Cloud Classification Word Search Puzzle
5. Weather Log Entry Form
6. Overhead Projector

Procedure:

1. Discuss how clouds are formed by either water droplets or ice crystals suspended in the air and how clouds can be used to help predict the weather.
2. Pass out the student cloud data sheet and discuss how there are 10 primary types of clouds. Challenge students to identify as many as possible prior to beginning lecture.
3. Using overhead slides, identify and discuss each of the 10 primary types of clouds. Encourage students to examine each slide and identify characteristics of each cloud type.
4. Instruct students to draw a simple picture of each type of cloud and to list information about each next to their drawing including:
 - Physical Description
 - Composition (water or ice)
 - Elevations at which each cloud occurs.
 - Weather forecasted by the cloud.
5. Review cloud types and elevations using the "10 Most Common Clouds and Where They Occur" slide.
6. Students will complete the "10 Most Common Clouds" worksheet.
7. Students will use their completed cloud identification sheet when taking their weather station readings each day. Cloud cover will be identified in the appropriate space in the daily weather log and used to help forecast that day's weather.

Enrichment Activities:

1. Students may research clouds using websites provided.
2. Have students go outside and identify as many clouds as possible.
3. Students can write descriptive essays on shapes they see in the clouds.
4. Students can make their own weather system in a bottle and observe the water cycle.
(See attached mini-lesson plan).

Evaluation/Assessment:

Teacher Observations
Completed Cloud Classification Worksheet
Completed Student Handout
Weather Log

Online Resources:

1. **Arizona State University "Chain Reaction" Science website:**
<http://chainreaction.asu.edu/weather/digin/clouds.htm>
2. **Cloud Imaging**
<http://imnh.isu.edu/digitalatlas/clima/imaging/cldfr.htm>
3. **Clouds and Precipitation**
[http://ww2010.atmos.uiuc.edu/\(Gh\)/guides/mtr/cld/home.rxml](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/cld/home.rxml)

Student Name: _____

Date: _____

10 Most Common Cloud Formations

Directions: Draw a line connecting each cloud on the left with its appropriate name on the right.



- Cumulus**
- Nimbostratus**
- Altostratus**
- Cirrus**
- Cirrostratus**
- Stratus**
- Altostratus**
- Cumulonimbus**
- Stratocumulus**
- Cirrocumulus**

Cloud Type	Picture	Description
Stratus Cloud		
Cumulonimbus Cloud		
Cumulus Cloud		
Nimbostratus Cloud		
Stratocumulus Cloud		
Alto cumulus Cloud		
Altostratus Cloud		
Cirrocumulus Cloud		
Cirrostratus Cloud		
Cirrus Cloud		

Meet Clouds by Name

By Conrad J. Storad

Clouds can make us happy. Clouds can make us sad. Big puffy white clouds floating through a bright blue summer sky make us smile. But boiling black storm clouds slashed with jagged lightening and crashing thunder make us run for shelter.

To be precise, a cloud is nothing more than a collection of water particles or ice crystals floating in the atmosphere. There are 10 different types of clouds. In 1803, English pharmacist Luke Howard identified these distinct cloud types. He then devised a system of cloud classification.

Howard's cloud classification system uses Latin words that describe the placement and appearance of clouds. For example, using Howard's system, a high (alto), spread out (stratus) cloud is called an altostratus cloud.

Meteorologists still use Howard's system today because it is so simple and effective.

Five of the 10 types of clouds can be found at low altitudes. The low-altitude clouds are called stratus, cumulonimbus, cumulus, nimbostratus, and stratocumulus.

- **Stratus** clouds are spread out, dull clouds usually found at ground level. Stratus clouds are so close to the ground they are identified as fog.
- **Cumulonimbus** clouds are piled up high like scoops of dark ice cream. These clouds usually bring rain showers.
- **Cumulus** clouds look like giant heads of cauliflower because they are white and fluffy.
- **Nimbostratus** Dark and flat, nimbostratus clouds often produce rain or snow.
- **Stratocumulus** clouds are spread out heaps of dense cover that rise higher in the atmosphere.

Altostratus and altostratus are middle-altitude clouds. Even though the word *alto* means "height" in Latin, these are not the highest clouds.

- **Altostratus** clouds look fleecy and have dark, shadowed sides.
- **Altostratus** clouds are flat and make the sun look as if it is being seen through a misty glass.

Clouds forming in high altitudes are called cirrus, cirrostratus, and cirrocumulus. It is so cold in the upper atmosphere that high altitude clouds contain ice crystals instead of water particles.

- **Cirrocumulus** clouds look like upside down waves rolling across the sky.
- **Cirrostratus** are high, thin clouds that look much like stratus clouds, but cirrostratus clouds contain ice crystals and are much higher.
- **Cirrus** clouds form when the wind blows these ice crystals into wispy streaks that look like thin horse tails.

Stratus Clouds:

Description: Spread out over a wide area, these dull colored clouds are composed of water droplets. Stratus clouds are commonly called fog.

Elevation: Low-level, often just above the ground.

Weather Forecast: High chance of rain.



Cumulonimbus Clouds

Description: Billowy clouds piled high like scoops of dark ice cream with a dark base. They can exist as individual towers or form a line of towers called a squall line.

Cumulonimbus clouds contain water droplets and/or ice crystals. Also called thunderstorms.

Elevation: Fueled by updrafts created as warm air rises and cold air descends through the middle of cloud, the tops of cumulonimbus clouds can easily reach 39,000 ft. and up.

Forecast: The chance of rain is very high within the next few hours.



Cumulus Clouds

Description: Cumulus clouds look like giant heads of cauliflower because they are white and fluffy. Cumulus Clouds are made up of water droplets and/or ice crystals.

Elevation: Cumulus clouds usually form below 6,000 feet and are much thinner than their stormy cumulus cousins which can soar to over 30,000 feet.

Forecast: Low chance of rain.

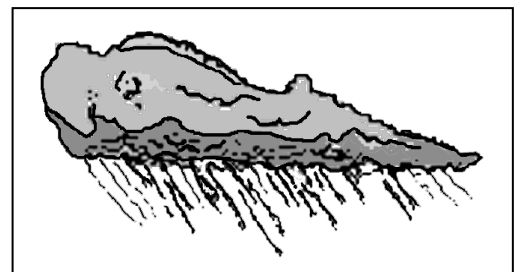


Nimbostratus Clouds

Description: Known also as rain or snow clouds, Nimbostratus clouds are usually wide and flat and very dark. Nimbostratus clouds are made up of water droplets and/or ice crystals.

Elevation: Nimbostratus clouds can be very low and high in the sky depending of the conditions.

Forecast: Very high chance of rain over a long period of time.



Stratocumulus Clouds

Description: Generally appear as a low, lumpy layer of clouds. Stratocumulus clouds can vary in color from a dark to light gray and may appear as rounded masses. Most form in long rolls with clear sky in between them. Made up of water droplets and/or ice crystals.

Elevation: These Low level clouds are generally found no higher than 6000 feet.

Forecast: Low chance of rain. Usually indicate that good weather will continue.



Alto cumulus Clouds

Description: Fluffy looking clouds with dark, shadowed sides that are made up of water and/or ice crystals.

Elevation: A middle elevation cloud that is commonly found between 6000 and 21,000 feet.

Forecast: Since these clouds generally form where two weather fronts are colliding, expect light rain.



Altostratus Clouds

Description: Altostratus clouds are a combination of water droplets and ice crystals that are gray or blue-gray in color. Altostratus clouds look like wide, flat sheets of gray.

Elevation: Altostratus Clouds are mid-level clouds commonly found between 6000 and 21,000 feet.

Forecast: Since they are common indicators of changing weather, you can expect large, wet storms soon.

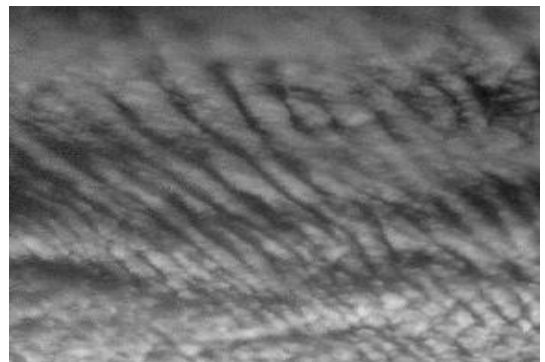


Cirrocumulus

Description: These clouds can occur individually or in long rows and often have a "rippled" appearance. This rippling looks like fish scales in the sky and is sometimes referred to as a *mackerel sky*. These clouds are composed mainly of ice.

Elevation: Cirrocumulus Clouds are generally found above 20,000 feet where it is always freezing.

Forecast: The weather might be changing. There is a slight chance of rain.



Cirrostratus Clouds

Description: Common thin clouds with a sheet-like appearance that are composed of ice crystals.

Cirrostratus clouds are very high and sometimes create a halo effect.

Elevation: Cirrostratus clouds exist above 20,000 feet.

Forecast: This type of cloud indicates an approaching warm front and a change in weather. If the Cirrostratus cloud cover is thick, expect bad weather in the near future.



Cirrus Clouds

Description: These clouds form when wind blows ice crystals into wispy streaks that resemble horse hairs.

Made up of mostly ice crystals due to the high elevation at which this type of cloud forms.

Elevation: Above 20,000 feet.

Forecast: Usually occur after a storm has passed. Expect the weather to improve and the skies to clear.



