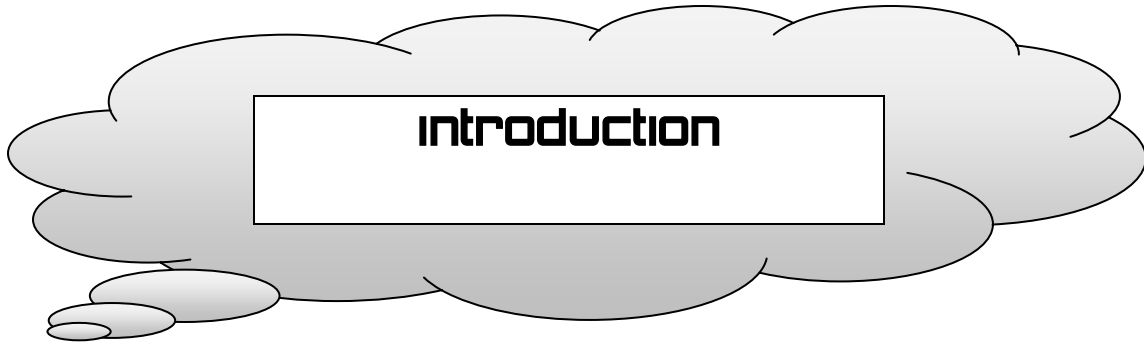


THE WEATHER AND YOU





Man has noticed God's handiwork since his beginning. Since man lost the rights to the Garden of Eden, he has had to use his hands to work. For centuries, man was a hunter and planter. The seasons played an important part in this adventure.

Today, man depends on machinery and technology. The man of the Bible depended upon the signs and his understanding of nature. Man has lost touch with his environment and now uses technology to plant and watch the weather.

WHAT IS WEATHER?

Genesis 1:14 And God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years:

Look up in the dictionary and define the following words: Be able to use each word in a sentence. Draw a picture to illustrate each word. Watch the weather on television and see how many of the words below they use. Then write your own pretend weather report.

Evaporation	Water Cycle	Condensation
Weather	Clouds	Tornado
Barometer	Humidity	Sleet
Wind	Hail	Lightning
Hurricane	Cyclone	Typhoon
Isobar	Fog	Temperature
Climate	Drought	Flood
Wind	Gale	Forecast
Thunderstorm	Precipitation	Tropical
Waterspout	Funnel Cloud	Thermometer
Thunder	Blizzard	Dew
Fahrenheit	Meteorologist	Meteorology
Front	Jet Stream	Prediction

Early weather predictions

Matthew 16: 2-3a He answered and said unto them, When it is evening, ye say it will be fair weather; for the sky is red. And in the morning, it will be foul weather, for the sky is red.

[Red sky at night, sailors delight.](#) When we see a red sky at night, this means the setting sun is sending its light through a high concentration of dust particles. This usually indicates high pressure and stable air coming in from the west. Good weather will follow.

Red sky in the morning, sailor's warning. A red sunrise reflects the dust particles of a system that has just passed from the west. This indicates a storm system may be moving to the east. If the morning sky is a deep fiery red, it means a high water content in the atmosphere. Therefore, rain is on the way.

[The Old Farmer's Almanac](#) is filled with weather related information, including gardening and other useful tips. Using the Almanac for your area, compare the weather predicted for your area and what the weather actually was like. Was the Farmer's Almanac correct? Check the accuracy over a period of months. Enter your observations into your weather journal. (See below)

According to the Old Farmer's Almanac supposedly, many years ago around Thanksgiving time, folks would eat a freshly killed goose. They would save the breastbone and put it on a shelf to dry, keeping an eye out for any change in color. If the bone turned a dark color, or became blue all over, that meant a real bad winter was coming. White meant a mild winter. The explanation, a goose retains more oil as its natural defense against cold weather. So, seeing a dark or blue breastbone would seem to indicate the bird's higher-than-normal oil content meant an impending cold winter season.

What did you notice about the temperatures in the morning, afternoon and evening?

What kind of changes in the weather did you observe?

Did the weather change what you had planned for the day?

What was the temperature difference between the lowest temperature and highest temperature?

Suggested activity: Plot a graph using the highs and lows for each day you record the temperatures. Keep the graph in your weather journal.

The 4 Basic Cloud Types



Cumulus

Cirrus

Stratus



Cirrocumulus

Learning about Clouds

Use [Dan's Wild Wild Weather](#) to help answer these questions.

What is the water or rain cycle?

What are clouds?

How are clouds formed?

What type of clouds are the highest in the sky?

Activities for younger and older children

Materials needed:

Four sheets of blue paper

Cotton balls

Glue

Using the four cloud types make clouds on the blue paper using the cotton balls. Then have the child explain what clouds are and how does a cloud form?

Older children should draw the pictures of clouds with more detail, label them and write a report on the type of clouds observed, and weather conditions at the time of the observation.

Have children observe the clouds and enter their observations into their weather journal. Have them explain what type of clouds they are. Older children should learn additional types of clouds and be able to identify them.

When you see the clouds, what types of weather did you observe? Enter the observations into the weather journal.

wind

Use www.weatherwizkids.com to find your answers

What is wind?

What causes the wind to blow?

What is the jet stream?

What are the trade winds?

What is a sea breeze?

What is a land breeze?

Name some things that people can use the power of wind for.



Wind Observations

MATERIALS: Get help from an adult.

- sleeve of a large, old long-sleeved shirt
- needle and thread
- string
- wire
- small rock

PROCESS:

Cut one sleeve off an old long-sleeved shirt.

Bend the wire into a circle. Make sure it is the same size as the top of the sleeve.

Place the wire into the top end of the sleeve. Take the needle and thread and stitch it, so the wire will stay in place.

You have just now made the mouth of the windsock.

Now, place the rock in some cloth on one edge of the wire. Sew it on tight to hold it in place.

Tie the string onto the wire opposite the rock.

Tie the other end of the string to a branch where it can move freely. The rock will keep the windsock facing into the wind.

EXPLANATION:

Now, your windsock is working! Use a compass to find out which direction the wind is blowing from.

Record findings in your weather journal.



MAKE AN ANEMOMETER

MATERIALS:

- 5 three ounce paper Dixie Cups (one should be a different color than the others)
- 2 soda straws
- pin
- paper punch
- scissors
- stapler
- sharp pencil with an eraser

PROCESS:

Take four of the Dixie Cups and use the paper punch to punch one hole in each, about a half inch below the rim.

Take the fifth cup and punch four equally spaced holes about a quarter inch below the rim. Then punch a hole in the center of the bottom of the cup.

Take one of the four cups and push a soda straw through the hole. Fold the end of the straw and staple it to the side of the cup across from the hole. Repeat this procedure for another one-hole cup and the second straw.

Slide one cup and straw assembly through two opposite holes in the cup with four holes. Push another one-hole cup onto the end of the straw just pushed through the four-hole cup.

Bend the straw and staple it to the one-hole cup, making certain that the cup faces the opposite direction from the first cup. Repeat this procedure using the other cup and straw assembly and the remaining one-hole cup.

Align the four cups so that their open ends face in the same direction either clockwise or counter-clockwise around the center cup.

Push the straight pin through the two straws where they intersect.

Push the eraser end of the pencil through the bottom hole in the center cup. Push the pin into the end of the pencil eraser as far as it will go.

Now your anemometer is ready for use!

EXPLANATION:

An anemometer is useful because it rotates with the wind. To calculate the velocity at which your anemometer spins, determine the number of revolutions per minute (RPM). Next, calculate the circumference (in feet) of the circle made by the rotating paper cups. Multiply your RPM value by the circumference of the circle and you will have an approximation of the velocity of at which your anemometer spins (in feet per minute). Your anemometer doesn't need to be pointed in the wind for use.

Note: Some forces are being ignored including drag and friction for this elementary illustration, so the velocity at which your anemometer spins is not the same as wind speed.

Now using the windssock and the anemometer, enter your findings along with other weather observations into your weather journal.

Word Search

Words you would use when discussing the weather.

b t h e r m o m e t e r e s h
m m h n i n r r e r m m d u e
r e t e m o r a b h n u r w n
o t n d r o u g h t o r e o e
t e n p u m c g e l i a i l a
s o o l n e o e c c t t i o f
r r i i e o l m a h a p e a j
e o t g m s o n e r s i h g e
d l c h h e e r o t n r e u t
n o i t a t i p i c e r p o s
u g d n h r a e l n d r r t t
h i e i c v s r h h n h t n r
t s r n e p a e t p o o t e
c t p g i s i b r m c l p i a
i o g w a t e r s p o u t o m

Evaporation	Weather	Barometer
Hurricane	Clouds	Drought
Thermometer	Meteorologist	Fahrenheit
Waterspout	Condensation	Jet Stream
Thunderstorm	Precipitation	Lightning
Thermometer	Sleet	Prediction



Thunderstorms

[Find your answers to the lesson here:](#)

What type of clouds produce thunderstorms?

What causes a thunderstorm?

What causes lightning?

What is thunder?

Which travels faster light or sound?

How can you tell how far away a storm is?

If you saw lightning and 15 seconds later, you heard thunder how far away is the thunderstorm?

What is hail?

What is the difference between a watch and a warning?

Should you take a bath during a thunderstorm? Explain why.

Activity: If a thunderstorm should occur, while using these lessons, have students keep track of time between the flashes of light and thunder. Did the time get shorter or longer? Explain why this might happen. Record your observations in the weather journal. Use caution when observing lightning.

HURRICANES

Define the following words: [Find answers here](#)

Cyclone

Hurricane

Typhoon

What is the difference between a Typhoon, Hurricane and a Cyclone?

Name the parts of a hurricane and draw a diagram of the storm.

How do these storms form?

How do meteorologists classify these storms?

What different steps would you take in protecting yourself from a hurricane and a tornado?

Write an [emergency plan](#) for yourself and the family should a dangerous storm or emergency approach. What would you put into your emergency kit?

TIME TO REVIEW

True or false and explain why.

Fog cannot be a cloud because it is not high enough in the sky.

It is okay to talk on a corded telephone during a thunderstorm.

Rain does not come from cirrus clouds.

The center of a hurricane is called a storm surge.

Winds that are produced by a tornado are called the jet stream.

The hurricane season starts in December and ends in March.

You should never have an up to date emergency plan ready because they are too much trouble.

Hurricanes never form over water, only land.

Multiple choice:

1. A barometer measures:

- a. Air temperature
- b. Wind direction
- c. Air pressure
- d. Humidity in the air

2. The center of a hurricane is called:

- a. storm surge
- b. eye
- c. eye-wall
- d. key-hole

3. Which is not a type of cloud

- a. cirrus
- b. stratus
- c. fog
- d. thunder