

# Weather Word Finder

Science SOL's: 2.6.a,b; 4.6.a-b

*Materials needed:* The three Weather module walls and a blackboard

*Objective:* Discuss, list and categorize weather elements from module walls.

*Instructions:* List as many weather related items from the three module walls as possible on the blackboard. Group and categorize the items during your discussion.

## **Word Suggestions that May Be Used by Students** (Words are not grouped in this list.)

Tornado	Hurricane	Cloud Burst	Temperature
Cyclone	Front	Digital Thermometer	Atmosphere
Analog Thermometer	Mercury Thermometer	Anemometer	Cloud Bank
Cirrus Clouds	Stratus Clouds	Cumulus Clouds	Wind/Gusts/Updraft/Shear
Water Cycle	Migration	Condensation	Climate/Jet stream
Evaporation	Rainbow	Wind	Squall
Water Shed	Fahrenheit	Celsius	Weather Pattern
Humidity	River	Stationary Front	Warm Front
Cold Front	Air pressure	Lake	Climate
Mountain	Weather Vane	Seasons	Cloud Ceiling/Visibility
Rain	Precipitation	Air Current	Troposphere
			Water Vapor

Thank you!

## Create a Weather Character & Tale

*Science SOL: K.8.a; 2.5.a,b; 2.6.a,b; 3.4.b; 3.6.a-c; 3.8.a,b; 4.6.a,b*  
*PWC Arts Objectives: 5P.1.2, 3P.6.3, 4P.11.2*

*Materials Needed:* Module walls and blank paper

*Objective:* To understand that weather is a constantly changing force in the world, and that it influences how we conduct our activities every day!

### *Option 1 Instructions:*

1. Pick a character from the pictures on the module walls and imagine that you are that character.
2. Now imagine yourself, as that character, in a weather environment such as a rain storm, tornado, a long dry spell, a beautiful spring day, a hurricane, etc. What weather conditions are you experiencing? What are you feeling? How do you behave as a result?
3. Write a descriptive paragraph that describes yourself, as that character, in the environment you have chosen. Tell what you are doing and how you feel because of the weather conditions you are experiencing.
4. Draw and color a picture of your characters in the weather environment that you have described.

### *Option 2 Instructions*

1. Students may create their own cartoon character that is experiencing a weather related situation.

## **Design & Fly a Paper Airplane**

*Science SOL's: 1.2.a,c,d; 3.1.a; 4.1.c,h; 4.2.a-d; 5.1.f,g*

*PWC Arts Objectives: 3P.9.2, 3P.16.1, 4P.1.1*

*Materials provided:*

- Airplane Competition Instructions
- Recycled paper in trunk, - each team gets a single sheet
- Paper Clips - each team gets 2 clips
- Scotch Tape – each team gets 2 pieces of tape
- Crayons
- Cloth measuring tape

*Objective:* To experiment with airplane design, measure distances, define variables and determine outcomes.

*Instructions:* For full instructions, please see the 4 page addition to this document. You may make this activity as simple or involved as desired.

Thank you!

## **Graph the Conditions**

*Science SOL's: K.5.1; K.8.a; 1.7;2.6.a,b; 4.6.a,b*  
*PWC Arts Objectives: 4P.16.1*

*Materials Needed:* 'Graph the Conditions' sheet from Teacher's Manual,  
Hygrometer/Thermometer

*Objective:* To graph the temperature and humidity daily for the length of module's stay.

*Instructions:* Have the students read and record daily the temperature and humidity on the graph. Discuss the differences between mercury, analog and digital thermometers. Note differences in temperature between types of measurement. The thermometer/hygrometer may be moved outside if a safe window ledge is available. (Please do not leave the thermometer/hygrometer out overnight.)

Thank you!

# Weather Map Activity

*Science SOL's: 2.6.a,b; 4.6.a,b*

*PWC Arts Objectives: 3P.1.6, 5P.1.2, 3P.4.1, 4P.4.1, 5P.4.1, 3P.4, 4P.4, 5P.4, 5P.11.2, 4P.11.1*

*Materials Needed:* Weather map on middle module wall, magnetic pieces in envelope, blank paper, ruler for drawing cloud grid

*Objective:* To explore and discuss current local and national weather patterns

## *Instructions:*

1. Use the weather map symbols to show types of weather patterns around the United States.
2. Use the weather symbol(s) over Virginia that most accurately represents the weather at your school today.
3. What type of weather will there be with high pressure, low pressure?
4. Compare the clouds on the cloud chart with the clouds outside your school today.
5. Describe the clouds you see. (puffy, bulging, low gray, high and wispy)
6. Draw a grid with six squares on a piece of paper; show the clouds you see outside today in the first square. In the other squares draw sunny skies, mostly sunny, partly cloudy and mostly cloudy; in the last box show rain clouds.
7. How does the weather affect the way you feel today?
8. What does the weather vane on top of the barn measure? What do you use to measure wind speed and direction?

LOCAL Weather Questions:

1. Do you know the elevation of the city your school is in?
2. How is barometric pressure affected by the elevation of your city?
3. What is the warmest month of the year in your city?
4. What is the coldest month of the year in your city?
5. How many inches of rain, on average, does your city get each year?
6. What is the wettest month of the year for your city?

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**Answers:**

1. Woodbridge: 70 ft, Dumfries: 67 ft, Manassas: 300 ft.
2. Barometric pressure varies with altitude. A higher elevation will have less atmosphere above it and exert less pressure. To keep readings standard across the world, barometric pressure is indicated at sea level. Readings at elevations other than at sea level require a correction factor which is based on the elevation and the air temperature (colder air weighs more and will require a greater correction).
3. Woodbridge: July (87.60F), Dumfries: July (87.60F),  
Manassas: July (87.40F)
4. Woodbridge: January (26 F), Dumfries: (26 F), Manassas: January (21.9 F)
5. Woodbridge: 40.71, Dumfries: 40.71, Manassas: 41.8
6. Woodbridge: September, Dumfries: September, Manassas: May

Thank you!

## Trees and the Seasons

*Science SOL: K.5.1; 1.7.a-c; 2.7.a; 3.8.a,b*

*PWC Arts Objectives: 3P.11.2, 5P.11.2, 4P.11.2, 3P.6.1, 4P.6.1, 5P.6.2*

*Materials Needed:* Blank paper, fold in half twice and open to show four quadrants.

*Objective:* To understand seasonal, weather related processes and effects on trees in the environment.

*Instructions:* After folding paper to show four quadrants, draw a tree or trees in each quadrant that represents each of the four seasons. It may be interesting to pick a tree outside your school window and show the season we are in now! You may also draw seasonal images within each quadrant, rain in spring, a sunny day for summer or the tree bowing in the fall wind. For winter, you may show trees with ice, or snow, along with deciduous and evergreen trees. Label each tree quadrant with the appropriate season.

Thank you!

# The Water Cycle

*Science SOL: 3.9.a-d*

*PWC Arts Objectives: 3P.6.3, 5P.6.2, 3P.11.2, 4P.11.1*

*Materials Needed:* Paper provided, showing module wall art that represents weather and the water cycle.

*Objective:* To understand the processes involved in the water cycle.

*Instructions:* Based on what you see on the module wall that represents the water cycle, show your own weather systems in action. Be sure to include your own characters in the drawing. Draw the arrows that represent what happens in the water cycle and label the steps. Also, label weather systems and types of clouds you include in your picture.

Thank you!