

Ames Public Library @HOME Activities

Climate and Weather Part 1

Weather is all around you, it influences what you eat, wear, and even the activities you can do. Weather and climate are also changing due to a number of factors. To learn more see a related video on the Library's YouTube Channel at <http://bit.ly/APLvideos>.

Books and Media:

Title	Author / Performer	Call Number
<i>Climate Emergency Atlas</i>	Hook, Dan	J 363.73 HOO
<i>Fever in the Oceans</i>	Aitken, Stephen	J 363.7337 AIT
<i>Fever at the Poles</i>	Aitken, Stephen	J 363.7387 AIT
<i>Climate Change</i>	Woodward, John	J 363.7387 WOO
<i>Climate Change</i>	(DK Let's find out)	J 367.73 CLI
<i>Climate Change</i>	Green, Dan	J 551.6 GRE
<i>The Hottest and the Coldest</i>	Marisco, Katie	J 551.6 MAR
<i>Polar Climates</i>	Senker, Cath	J 551.6911 SEN
<i>Climate Change: Discover How It Impacts Spaceship Earth</i>	Sneidman, Joshua	J 577.22 SNE
<i>The Magic School Bus – Climate Challenge</i>	Degen, Bruce	e-audio (Overdrive)
<i>Weather and Climate</i>	Greek, Joe	e-book (Overdrive)
<i>Climate Scientist</i>	Gregory, Josh	e-book (Overdrive)

Websites:

URL	Notes
https://climatekids.nasa.gov/menu/weather-and-climate/	<i>This is a great website with lots of information</i>

Take Away Kit: Anemometer

Bag Contents:

- 5 – 3oz paper cups
- 2 straws
- 1 pencil with an eraser
- 1 push pin

An anemometer is a device that measures the speed of the wind. To learn how to make an anemometer watch the @Home Activity video on the Library's YouTube Channel at <http://bit.ly/APLvideos>.

The cups have holes punched in them. One cup has four holes punched just below the rim of the cup, the other 4 cups have only two holes punched adjacent to each other.

Find the cup with the four holes, push the two straws provided through these holes so the straws cross each other in the center of the cup.

In the cups that have two holes, thread the end of each straw into a cup, and make sure all the cups face the same direction around the circle (all clockwise or all anti-clockwise).

Next use the tip of your pencil to poke a hole in the center of the cup.

Press the pencil into this hole, eraser side first, and wiggle the pencil to widen the hole slightly.

Lightly push the push pin from the top through the two straws and into the eraser. Don't push the pin in too deep or the anemometer will not spin. Hold the anemometer up and try spinning it, if it does not spin try loosening the push pin a little to reduce the friction.

Your anemometer is now ready! To test it take it outside on windy day and watch it spin!

Vocabulary

Anemometer – An instrument used in weather forecasting to measure the speed and force of the wind.

Atmosphere – The layer of gases that surrounds a planet and is held to it by the planet's gravity (force of attraction).

Barometer – An instrument used in weather forecasting to measure the pressure of the atmosphere.

Climate – The general pattern of the weather of a place, year by year.

Derecho – A huge windstorm associated with a thunderstorm.

Greenhouse effect – The way certain gases in the Earth's atmosphere trap the Sun's heat like the panes of glass in a greenhouse. The effect increases the temperature of the Earth's surface and its lower atmosphere.

Meteorology – a science that studies the atmosphere climate and weather conditions in regions throughout the world.

Precipitation – Any form of water falling from the sky.

Season – A period of time each year with particular weather conditions.

Weather – The conditions of the atmosphere at any particular time and place.

Weather satellite – A spacecraft that orbits around a planet and can carry tools to track the weather.

Wind – Air moving in relation to the Earth's surface.

Source: Weather: An amazing fact and hands-on project book by Robin Kerrod. J 551.5 KER
First big book of weather by Karen De Seve. J 551.5 DES