

WARGO NATURE CENTER PRESENTS

WEATHER WEEK

WHAT IS WEATHER? WHY DOES IT HAPPEN? LET'S FIND OUT!



TERMS

Weather: Weather is a specific event—like a rainstorm or hot day—that happens over a few hours, days or weeks.

Climate: Climate is the average weather conditions in a place over 30 years or more

WEATHER WEEK RESOURCES

CLICK ON THE LINKS BELOW
FOR MORE INFORMATION

[Find out what you can do before
severe weather strikes](#)

[Weather Experiments](#)

WEATHER WEEK

DAY 1

COOKING UP SOME WEATHER

What do you think about when you hear the word "weather?"
Write or draw as many weather words as you can think of below.

WORDS OF WEATHER

Why does the weather happen? If we think of weather like baking a cake, we need certain ingredients to make weather happen. See if you can figure out the ingredients for weather by unscrambling the words below.

IRA _____

NSU _____

TREAH _____

RATWE _____

WEATHER WEEK

DAY 2

AIR AND WIND

Air

You might think of air as not having weight, but it does. Air is constantly pushing on us, but we also have air inside our bodies so we don't feel it. The slight push that air has is called "air pressure." Low air pressure usually means stormy weather. High air pressure usually means nice, sunny weather.

Air Pressure Experiment

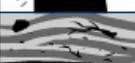
Note: A responsible adult should always be present—both physically and mentally—when the children are conducting an experiment.

Materials: drinking cup, index card, water

To do: Fill the drinking cup to the brim with water. Hold the index card on the top of the cup's rim, making sure it covers the entire surface of the cup's rim. Pick up the cup and carefully turn it upside down while holding onto the card. Once the cup is upside down, release your hand and the card should stay. The air pressure outside the cup is greater than the water pressure inside the cup so the air pressure keeps the index card in place.

Wind

Meteorologists, or scientists that study weather, use a tool called an anemometer to measure wind speed. You don't need any tools to measure wind speed, however. Use the scale below to figure out the wind speed.

Beaufort number	Wind Speed (mph)	Seaman's term		Effects on Land
0	Under 1	Calm		Calm; smoke rises vertically.
1	1-3	Light Air		Smoke drift indicates wind direction; vanes do not move.
2	4-7	Light Breeze		Wind felt on face; leaves rustle; vanes begin to move.
3	8-12	Gentle Breeze		Leaves, small twigs in constant motion; light flags extended.
4	13-18	Moderate Breeze		Dust, leaves and loose paper raised up; small branches move.
5	19-24	Fresh Breeze		Small trees begin to sway.
6	25-31	Strong Breeze		Large branches of trees in motion; whistling heard in wires.
7	32-38	Moderate Gale		Whole trees in motion; resistance felt in walking against the wind.
8	39-46	Fresh Gale		Twigs and small branches broken off trees.
9	47-54	Strong Gale		Slight structural damage occurs; slate blown from roofs.
10	55-63	Whole Gale		Seldom experienced on land; trees broken; structural damage occurs.
11	64-72	Storm		Very rarely experienced on land; usually with widespread damage.
12	73 or higher	Hurricane Force		Violence and destruction.

Does wind help plants and animals?

Can you think of ways that wind might help these things below? Look outside or go outside to look for ways wind may help these plants and animals.

Seeds

Pollen

Spores

Spiders

Predators and Prey

WEATHER WEEK

DAY 3

Clouds

Clouds can be a way to predict the weather. How do clouds form? A cloud forms when water evaporates from the surface of the earth and then condenses on a tiny particle up in the air. There are many difference types of clouds so we will focus on 3 main types.

Cirrus clouds appear very high in the sky. They look quite thin and often have the appearance of wispy hair. Cirrus mean “curly hooks” and are commonly known as mare’s tails because they look like horse tails. These types of clouds mean good weather.

Cumulus clouds are puffy, white clouds that bulge out at their tops like cauliflower. Cumulus clouds mean good weather when there’s a lot of space in between the clouds and they don’t build up very much.

Stratus clouds are very low clouds. They often appear to cover the entire sky, like a blanket and look gray. Fog is considered a low stratus cloud in contact with the ground.

Cumulonimbus clouds look like mountains of tall cumulus clouds. These clouds usually means thunderstorms.

	cirrus	White, feathery, highest
	stratus	Wide blankets of gray, “high fogs” low
	cumulus	Puffy, flat bottoms, low in the sky
	cumulonimbus	Thunderstorm clouds, look like mountains of very tall cumulus clouds

MAKE YOUR OWN CLOUDS TO HELP YOU REMEMBER THE DIFFERENT TYPES

Here are some ideas:

Sketch on a piece of paper with a pencil

Use cotton balls by stretching them out or clustering them together

Use a white crayon on blue construction paper to draw the cloud types

WEATHER WEEK

DAY 4

STORMS AND SEVERE WEATHER

Storms

Storms can be scary but they can be interesting too. Sometimes when you are scared of something, if you learn more about and start to understand it better, it becomes less scary.

The book *Thunder Cake* by Patricia Polacco tells the story of how a grandmother helps her grandchild overcome her fear of thunderstorms. You can watch it on YouTube: https://www.youtube.com/watch?v=F_InlvFf_CA

Severe Weather Plan

There are lots of helpful tips to consider on the [Ready.gov](https://www.ready.gov) website to develop an emergency plan for your family. A few of the most important are:

Have a well-stocked emergency supply kit on hand that is kept where your family can quickly find it.

Determine your severe weather safe spot like a basement, interior closet or bathroom.

Decide on a location to meet if you're separated.

Identify an emergency contact in and out of town (out of town communication is sometimes easier during an emergency due to cellular networks).

Have a weather alert radio with battery back up power and plenty of batteries on hand.

YOUR SEVERE WEATHER PLAN

What's in your supply kit?

Your severe weather safe spot -

Meeting location -

Emergency contact 1 -

Emergency contact 2 -

WEATHER WEEK

DAY 5

Weather Scavenger Hunt

Look outside or go outside on a weather scavenger hunt to see how many weather-related things you can find. Draw or take photos of the items on the list.

Something bending towards the sun

Something hiding from the sunshine

Something that may become part of a cloud

Something that tells you the wind is blowing

A bad place for a person to seek shelter during a lightning storm

A good place for a person to seek shelter during a thunderstorm or tornado

A place where rain has moved the soil

Something that is bent in the wind

Something that reflects a lot of sunlight

Something that will soak up rain

Something that uses sunlight or wind or water to work

Something that smells better after a rain shower

WEATHER WEEK

CRAFT - TIN CAN WIND CHIME

Supplies

Empty Cans (variety of sizes/shapes)
String or Yarn
Paint
Brush
Washers or Nuts
Nail and Hammer
Yarn Needle

Instructions

Carefully look through your recycle bin for cans. Take labels off cans and wash/dry. We took this project outside since it was a nice day to help keep the mess out of the house.

Paint the cans and let dry. Use your hammer and nail to poke holes in the tops of the cans.

We used a small can as the top and poked holes in the sides to hang several cans from. You could also use a stick to tie them in a line or tie all of the strings together in a knot so they are clustered together.

Use the needle to thread the string through the hole. Tie a washer on the inside of the hole to keep the can in that spot. Use excess string to tie on a washer or nut. Adjust the cans so they are at different lengths but still touching each other.



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SEARCH FOR: WEATHER



Weather

Science Explorer

Tamra B. Orr (Author)

Minnesota Made

BOOK



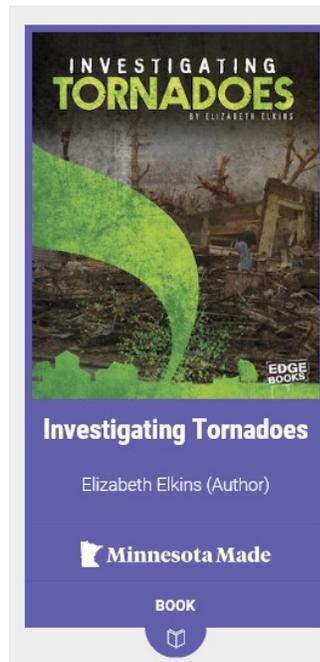
Experiment With Weather

Science Explorer Junior, Junior Scientists

Tamra B. Orr (Author)

Minnesota Made

BOOK



Investigating Tornadoes

Elizabeth Elkins (Author)

Minnesota Made

BOOK



Thunderstorms

Our Wonderful Weather

Valerie Bodden (Author)

Minnesota Made

BOOK



It's Raining!

Weather Watchers

Nadia Higgins (Author), Damian Ward (Illustrator)

Minnesota Made

BOOK



W Is for Wind

A Weather Alphabet

Pat Michaels (Author), Melanie Rose (Illustrator)

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Wake Up, Weather!

Rita Marshall (Author), Monique Felix (Illustrator)

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Wild Weather

Science Adventures with Sonny the Origami Bird

Thomas Kingsley Troupe (Author), Jamey Christoph (Illustrator)

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BOOK

