Day 3
Extreme Weather

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Extreme Weather

Introduction

Severe weather or climate conditions can damage or devastate communities and natural environments. Extreme weather events can include heat waves, hurricanes, tornadoes, tropical cyclones, and floods and are often short-lived. Other climate-related extreme events last longer than weather events or come out of weather or climate events that go on over a longer period of time, such as **drought**.

Severe and extreme weather events can bring uncertainty and anxiety into our lives. But kids who are aware of and prepare for extreme weather will understand and appreciate that there are caring adults around who want them to stay safe. And that there are things that they can do themselves!

This day focuses on understanding how extreme weather forms, particularly thunderstorms and tornadoes, and what kids can do to prepare themselves and their communities to stay safe in extreme weather.

Questions to guide explorations and experiments

- What is extreme weather?
- How is extreme weather different from other types of weather?
- How does extreme weather affect the lives of people and other living creatures?
- What kinds of extreme weather happen where we live?
- What can we do to stay safe in extreme weather conditions and help others?

Books and activities

- **Books:** about all kinds of extreme weather, climate change, thunderstorms, and tornadoes
- **Activities:** understanding how thunderstorms, lightning, and tornadoes form and the impact they have; projects to improve preparedness and safety in extreme weather

Children's Books

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Fiction

- *Beak & Ally: The Big Storm* by Norman Feuti (Ages 6-10)
- *Blizzard* by John Rocco (Ages: 3-7)
- *Booma Booma Boom* by Gail Silver (Ages 4-8)
- *Bruce's Big Storm* by Ryan T. Higgins (Ages 4-8)
- *Clifford Keeps Cool* by Norman Bridwell (Ages 3-6)
- *The Coquíes Still Sing: A Story of Home, Hope, and Rebuilding* by Karina Nicole González (Ages 6-9)
- *Come On Rain* by Karen Hesse (Ages 3-6)
- *Eye of the Storm* by Kate Messner (Ages 9-12)
- *The Fog* by Kyo Maclear (Ages 6-9)
- *Heatwave* by Eileen Spinelli (Ages 6-9)
- *Hurricane* by John Rocco (Ages 3-7)
- *Hurricane Rescue* by Jennifer Li Shotz (Ages 8-12)
- *I Am a Tornado* by Drew Beckmeyer (Ages 4-8)
- *I Am the Storm* by Jane Yolen and Heidi E. Y. Stemple (Ages 3-7)
- *I Feel Safe* by David McPhail (Ages 3-6)
- *Katy and the Big Snow* by Virginia Lee Burton (Ages 4-8)
- *The Legend of Lightning and Thunder* by Paula Ikuutag Rumbolt (Ages 6-9)
- *Mardi Gras Almost Didn't Come this Year* by Kathy Price (Ages 4-8)
- *Otis and the Tornado* by Loren Long (Ages 3-8)
- *Pattan's Pumpkin: A Traditional Flood Story from Southern India* by Chitra Soundar (Ages 4-8)
- *Science Comics: Wild Weather: Storms, Meteorology, and Climate by* M.K. Reed (Ages 9-12)
- *The Storm in the Barn* by Matt Phelan (Ages 10 and up)
- *Thunder Cake* by Patricia Polacco (Ages 3-8)
- *Thunderstorm* by Arthur Geisert (Ages 4-8)
- *To Change a Planet* by Christina Soontornvat (Ages 4-8)
- *Waiting Out the Storm* by JoAnn Early Macken (Ages 3-7)
- *When the Wind Came* by Jan Andrews (Ages 4-8)

Children's Books

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Poetry

- *Tornado! Poems* by Arnold Adoff (Ages 8 and up)
- *Viento, Vientito / Wind, Little Wind* by Jorge Tetl Argueta (Ages 4-7)
- *Zap! Clap! Boom! The Story of a Thunderstorm* by Laura Purdie Salas (Ages 3-7)

Nonfiction

- *Al Roker's Extreme Weather* by Al Roker (Ages 9-12)
- *All the Feelings Under the Sun: How to Deal With Climate Change* by Leslie Davenport (Ages 10 and up)
- *The Big Storm* by Bruce Hiscock (Ages 6-10)
- *Climate Action: What Happened and What We Can Do* by Seymour Simon (Ages 6-10)
- *Extreme Weather: Surviving Tornadoes, Sandstorms, Hailstorms, Blizzards , Hurricanes, and More! (National Geographic Kids)* by Thomas Kostigen (Ages 8-12)
- *Flash, Crash, Rumble, and Roll* by Frank Branley (Ages 3-8)
- *How Ben Franklin Stole the Lightning* by Rosalyn Schanzer (Ages 6-9)
- *Hurricane & Tornado* by Jack Challoner (Ages 8-12)
- *Kids Fight Climate Change* by Martin Dorey (Ages 7-10)
- *Old Enough to Save the Planet* by Loll Kirby (Ages 7-12)
- *Our House Is on Fire: Greta Thunberg's Call to Save the Planet* by Jeanette Winter (9 -12)
- *Something Happened to Our Planet: Kids Tackle the Climate Crisis* by Marianne Celano and Marietta Collins (Ages 6-9)
- *Storm on the Desert* by Carolyn Lesser (Ages 4-8)
- *The Story of Lightning & Thunder by* Ashley Bryan (Ages 5-8)
- *Thunderstorms* by Chana Stiefel (Ages 8-10)
- *Tornado! The Story Behind These Twisting, Turning, Spinning, and Spiraling Storms (National Geographic Kids)* by Judy Fradin (Ages 4-8)
- *The Tornado Scientist: Seeing Inside Severe Storms* by Mary Kay Carson (Ages 9-12)
- *Tornadoes!* by Gail Gibbons (Ages 4-7)
- *When the Sky Breaks: Hurricanes, Tornadoes, and the Worst Weather in the World* by Simon Winchester (Ages 9-12)

Activity 1: Thunderstorms

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Introduction

Thunderstorms are dangerous storms that happen a lot. There can be 40,000 to 50,000 thunderstorms each day around the world! They can occur any time of year and at any hour.

All thunderstorms have lightning. Hundreds of people in the U.S. get struck by lightning each year and some of them die. Lightning strikes can also start fires. In addition, thunderstorms can bring strong, destructive winds that knock down trees and power lines. Heavy, intense rainfall from thunderstorms can cause flash floods. And thunderstorms can bring tornadoes as well as damaging hail.

Given the danger and noise they bring, thunderstorms can be loud and scary for some kids.

With these activities, kids can work in small groups to create their own thunderstorm and lightning to better understand what they are and how they form.

Supplies for thunderstorms

- blue and red food coloring
- water
- ice cube tray(s) for making ice cubes using blue food coloring (make the ice cubes before you start the activity)
- clear plastic container about the size of a shoe box

Activity 1: Thunderstorms

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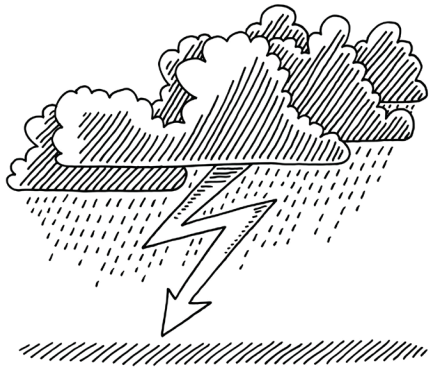
Get kids thinking ...

Find out what they know about storms and how storms form. **Ask kids:** How and why do thunderstorms happen where we live? How do you feel about thunderstorms? What differences have you noticed between a warm, sunny day and a warm, stormy day? Talk about which weather conditions they have noticed that often result in thunderstorms. Get kids talking about their feelings about thunderstorms after sharing *Thunder Cake* by Patricia Polacco.

Explore clouds

What Causes a Thunderstorm?
https://youtu.be/pcZn3dGWQ-U

What Causes Lightning?
https://youtu.be/VqXnN_FQfrc



Let's get started!

In advance: Fill the ice cube tray with water and add several drops of blue food coloring to each cube. Freeze until solid.

Step 1: Have kids fill the clear plastic container almost to the top with lukewarm water. They should make sure the water is lukewarm and not hot.

Step 2: Provide each group with 4 or 5 blue ice cubes to add to the water near the left side of the container.

Step 3: Right after they add the ice, each group should squeeze 8 or more drops of red coloring into the water on the right side of their container.

Step 4: Watch what happens as the two different colors — and temperature — interact with each other.

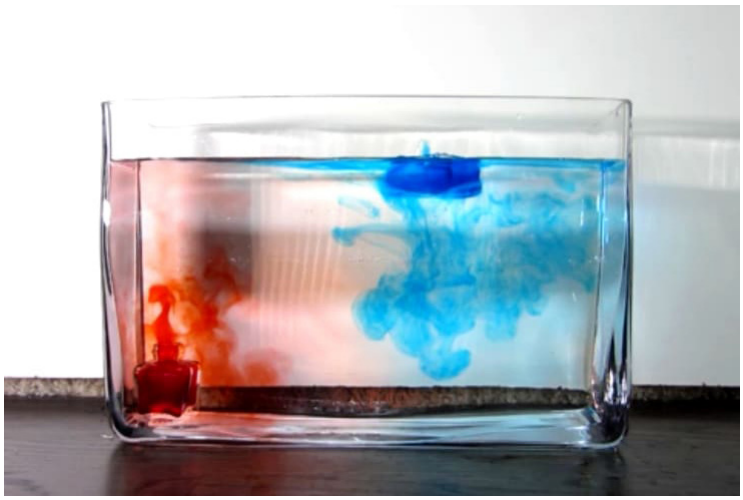
As kids make their observations, **ask**: Why does the blue ice water sink while the warmer red water rises, or stays higher than the blue? Talk with them about what the blue and the red

Activity 1: Thunderstorms

water represent. The blue ice water is the cool sinking air. The red water is the warm air rising. How does this relate to how a thunderstorm forms?

A thunderstorm can develop when warm, moist and cold, dry air masses meet.

When the air near the ground is warmer than the temperature of the air higher up in the **atmosphere** and there is high humidity, conditions are right for a thunderstorm. As the warm, moist air above the ground rises, it gives its heat to the atmosphere. The water **vapor** in the warm air cools, releases heat, condenses, and forms a cloud that grows as water droplets within it get bigger as more water from rising air is added. As defined by the National Weather Service, this vertical transport of heat and moisture in the atmosphere, especially by changes in wind direction (updrafts and downdrafts) in an unstable atmosphere, is known as **convection**.



Where's the lightning?

As storm clouds rise up into freezing air, ice particles can form. Water moving up higher into the atmosphere bumps into falling ice particles and these collisions cause positive electric charges to develop in the top of the cloud and negative electric charges to develop in the bottom. When a HUGE amount of charge builds up, the negative charges in the cloud connect with positive charges on the ground or in other clouds and ZAP — lightning occurs.

Kids can see how storms discharge static electricity when they make their own tiny sparks.

Activity 1: Thunderstorms

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Supplies for lightning

- aluminum pie pan
- wool sock or other small piece of wool fabric
- styrofoam plate
- pencil with a new eraser
- flat-head thumbtack
- fork (optional)

Let's get started!

In advance: Work out how to make the room used for this demonstration as dark as possible.

Step 1: Have kids turn the aluminum pie pan over and gently push the thumbtack through the center.

Step 2: Gently turn the pie pan over again, making sure the thumbtack stays in place. Push the eraser of the pencil into the thumbtack. Set the pie pan aside.

Step 3: Turn the styrofoam plate upside down. Have kids briskly rub the plate with the wool sock for at least 2 minutes. Ask kids to think about what this rubbing is doing.

Step 4: Using the pencil as a handle, put the pie pan on top of the upside down styrofoam plate.

Step 5: One child should touch the edge of the pie pan with a finger. Did they feel a shock?

Step 6: Make the room dark. Have a child touch the edge of the pie pan with a finger or a fork. Did they see a spark?

Step 7: Give everyone a chance to make a spark. Kids may need to recharge their styrofoam plate with additional rubbing using the wool sock.

Talk with kids about their other experiences with static electricity. Have they ever scooted across the carpet in

Activity 1: Thunderstorms

their socks and then received a shock from a doorknob? How do other objects become electrically charged? How does the demonstration with the pie pan and styrofoam plate relate to how lightning forms?

More lightning activities

Make Lightning at Home
https://www.sciencemuseumok.org/smoathome/try-make-lightning-home

Where's the thunder?

Thunder is the sound of the quick moving air that has been superheated and expanded by lightning. The flash of lightning happens at about the same time as thunder sounds. But because light travels faster than sound, people see lightning before they hear thunder.

Be sure kids understand that if you can hear thunder, you are close enough to be struck by lightning. Encourage them to remember, "when thunder roars, go indoors" to stay safe from lightning strikes.

Demonstrate the sound of thunder to kids by blowing into a small brown paper bag. When it is filled with air, twist the open end closed, then hit the bag hard with your other hand. The air that gets pushed out of the bag makes a sound when it reaches the ear.

More thunderstorm activities

Help kids get to know more about thunder and lightning with these online interactive activities:

Make a Thunderstorm
https://scied.ucar.edu/interactive/make-thunderstorm

Activity 1: Thunderstorms

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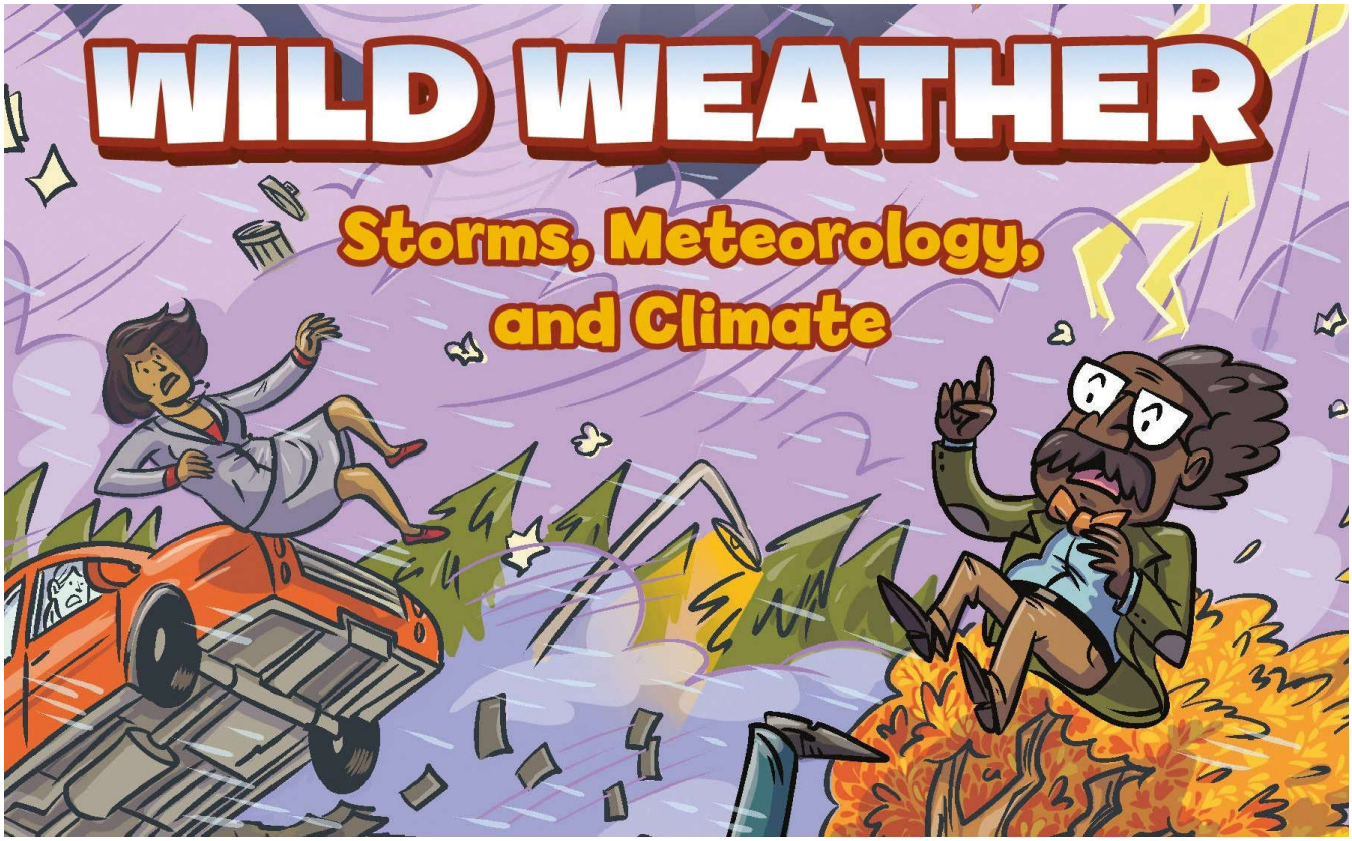
How Far Away Is Lightning? (simulation)
https://scijinks.gov/how-far-away-is-lightning/

Make Lightning with ZAP!
https://scijinks.gov/zap-game/

Get hands on:

Make an Indoor Thunderstorm
https://insidetheorchestra.org/2019/06/10/family-thunderstorm-activity/



Page spread from: *Science Comics: Wild Weather: Storms, Meteorology, and Climate* by M.K. Reed

Activity 2: Tornadoes

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Introduction

Also known as a twister, a tornado is a violent storm with a fast-spinning column of air that reaches down from the base of a powerful thunderstorm and touches the ground. Dust, debris, and water droplets make a tornado's funnel very distinct.

The U.S. has more tornadoes than anywhere else in the world — on average, more than 1,000 each year. Tornadoes can and have occurred in all 50 states and can happen at any time of year and any time of the day. Tornadoes are dangerous and can cause death, injury, and destruction. Reading and talking about how tornadoes form and the impact they have can help kids understand and prepare for this extreme weather event.

With this activity, kids can work in pairs to create their own tornado in a bottle and learn how a **vortex** forms and how the air in a tornado swirls and develops its funnel shape.

Supplies

- two clear 2-liter plastic bottles with labels and plastic neck rings removed
- water
- duct tape and a 1-inch metal washer (or a tornado tube connector: https://www.officedepot.com/a/products/588963/Tornado-Tube-Twister-Tube-Connector-Experiment/)
- food coloring (optional)
- tiny toys (optional)

Get kids thinking ...

Ask kids to think about what they learned about how thunderstorms form when warm, moist air rises through colder air. Air rising causes a change in wind direction, or updraft. **Ask:** What do you think happens when rising air meets falling air in a thunderstorm with winds that are moving with different speeds and in different directions?

Activity 2: Tornadoes

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Explore tornadoes

Tornadoes: Spinning Thunderstorms
https://www.amnh.org/explore/ology/earth/tornadoes-spinning-thunderstorms

Meet a Tornado
https://youtu.be/8wMqwCYW7b4

Let's get started!

Step 1: Provide each pair of kids with two clear 2-liter bottles. Kids can fill one bottle with water, about 3/4 full. Give the option of adding a few drops of food coloring or small items that represent dirt and debris. (Note that small items can sometimes stop up the connection between the two bottles and interrupt the flow of the tornado.)

Step 2: Kids need to connect the two bottles together. If tornado tube connectors are available, kids should twist it onto the top of the bottle with water and then twist in the second bottle on the other end of the connector. Tube connectors can be found in the plumbing section of your local hardware store.

If using a washer and duct tape, get two or three 4-to-5-inch strips of duct tape ready. Then place the washer over the opening of the bottle with water. Turn the second bottle upside down and carefully line it up on top of the washer. One child should hold the bottles together in place while the other uses duct tape to secure the bottles together tightly, making sure there is no leaning or leaking.

Step 3: Grabbing either the connector or duct tape, lift the connected bottles up and flip it over so that the bottle with water is on top. Still holding on to the bottle connector, quickly rotate the bottles in small circles. Kids should help keep the bottles lined up by steadying the top bottle with their other hand as they rotate the bottles. Swirl, don't shake!

Step 4: Stop rotating the bottles and take a look to see there is a tornado forming in the water. (It might take a few tries to get the water moving quickly enough.)

Activity 2: Tornadoes

As kids make their observations, **ask**: How does this demonstration relate to how tornadoes form? Talk about the warm, rising air of a thunderstorm. How is that represented in this demonstration? What does the water represent? How is the circular rotation of the bottles similar to the winds inside the clouds that help produce tornadoes? What happens if you rotate the bottles longer and harder?

Tornado in a Bottle Experiment: https://playingwithrain.com/tornado-in-a-bottle-experiment/

More tornado activities

Help kids get to know more about tornadoes with these online interactive activities:

Control a Tornado
https://whyfiles.org/2013/control-a-tornado/index.html

Tornado Simulator
https://scijinks.gov/tornado-simulation/

Activity 2: Tornadoes

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Get hands on:

Creating a Twister in a Jar
https://scied.ucar.edu/activity/creating-twister-jar

It's a Twister!
https://www.redcross.org/content/dam/redcross/get-help/youth/Pedro-supplemental-activity-TORNADO.pdf

Illustration from *I Am the Storm* by Jane Yolen and Heidi E. Y. Stemple

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Activity 3: Climate Check! Smarter than the Weather

Introduction

No matter how much kids know about the science of storms, they still need to be in a safe place when one is happening. With climates changing, flooding, wildfires, or really hot days are happening more often.

Kids can help their families and communities meet the challenges of extreme weather and natural disasters by getting smart and getting prepared.

This activity provides guidelines to help kids form their own plan of action to educate others about severe weather, climate change, and make a difference by getting their family, school, or community prepared.

Supplies

- writing supplies
- access to research materials through the internet and print

Get kids thinking ...

Ask: What can you do to show everyone how to be smarter than the weather? How can you help people adapt to the impacts of climate change?

Let's get started!

Talk with kids about how planning can help them accomplish a goal. Then, have them sign the PACT — an agreement to develop, follow through, and carry out their plan. Provide them with the steps below and talk them through

Step 1: Pre-planning. List problems or situations caused by the weather that concern you. (Some problems many communities deal with include finding safe routes during flooding; evacuating with pets; or securing plans for safety in case of lightning during outdoor events.

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Activity 3: Climate Check! Smarter than the Weather

After thinking about which interests you the most, choose the climate plan that has the greatest importance to you and your family, and the kind of impact you can make.

Planning starts when you analyze or take a close look at the situation. Use the 5 W's and H questions to get started:

- Who? (the people)
- What? (the action)
- Where? (the location)
- When? (the time)
- Why? (the reason)
- How? (the methods or means)

Step 2: Get more information. Be sure you understand the problem. Research and read about the issue online and in books. Talk to people in government or organizations who are already involved with the problem. Try to get a variety of points of view on the issue.

These websites are good places to start:

Ready Kids: https://www.ready.gov/kids

National Weather Service Weather-Ready Nation: https://www.weather.gov/wrn/

Photo: Ready.gov Ready Kids

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Activity 3: Climate Check! Smarter than the Weather

Step 3: Research solutions. As you gather information, pay attention to how others are dealing with the problem and note any ideas that you've had about how to make a difference.

Step 4: Plan to act. Develop specific ways to be of help. Consider these weather-wise ideas:

- Talk with your parents about making a family emergency plan
- Help prepare Emergency Supply Kits for your family and others in need
- Plant trees to help keep things cooler during extreme heat
- Prepare and make presentations to local soccer, baseball, and football teams and their coaches on lightning safety
- Put together a storm survival kit for the family car
- Raise awareness about water conservation and drought
- Organize a public service campaign on flood safety
- Add a weather forecast with preparedness messages to your school's morning announcements or school newspaper
- Ask your school or public librarian to showcase weather-related titles at the library and provide preparedness information or a poster to complete the display
- Be aware and encourage others to pay attention to weather warnings and watches

Set a realistic goal — something you can really accomplish. Is there an action you can take? What resources or help will you need? How long will it take to complete?

Don't be afraid to ask for help. Your teacher, family members, scout leader, friends, and others may be able to help.

Step 5: Make a PACT and carry out your plan.

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Activity 3: Climate Check! Smarter than the Weather

PLAN + ACT = PACT

As a Weather Wonder, I am excited to help my community get weather wise! I plan to (*describe your plan of action*):

_____

_____

_____

_____

and hope this action will help (*write your goal*) _____

_____

_____

_____

Signed: _____

Date: _____

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Activity 3: Climate Check! Smarter than the Weather

Community connection

It's not just people that have to deal with extreme weather and natural disasters. Head outside and ask kids to take a look for the creatures that make their homes around your neighborhood. Talk about what kids find and discuss their awareness of birds and wildlife in your community. Ask students how they think extreme weather and climate change are impacting wildlife in all sorts of settings and why they think it would be important to understand what is happening in their own community.

Ask: How is our community part of broader ecosystems? Have kids share their ideas for how to contribute what they observe about weather, climate change, and local wildlife to officials in your community as well as larger efforts that study the impact of climate change on animals and their habitats.

Explore learning about climate from wildlife

Marina Ventura's Climate Explorers: https://www.funkidslive.com/learn/marina-ventura/climate-explorers/learning-climate-wildlife/

Talk about why it is important for all citizens to stay informed about things that impact the environment. Together, scan the news for items of interest and importance that affect the environment and your community, such as land development or water restrictions. Find out what issue or issues resonate with kids and talk about their concerns. Discuss their ideas for staying informed about their issues and what they can do to have a voice in what happens in their community.

Activity 3: Climate Check! Smarter than the Weather

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More preparedness activities

Help kids get to know more about getting prepared for weather and climate change with these online interactive activities:

Help the Community
https://scied.ucar.edu/kids/interactive/help-community-climate

Disaster Master game
https://www.ready.gov/kids/games/data/dm-english/index.html

Get hands on:

Disaster Prep Rally Lesson Books and Resources
https://www.savethechildren.org/us/what-we-do/disaster-relief-in-america/preparedness#kit

Climate Kids Climate Science Activity Book
https://drive.google.com/file/d/1y_0GsRpLo65KTQUrnwXkiMf1-lesVB_k/view

WEATHER WALK

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Take kids outside to observe the weather. After the **Daily Data Collection** and **Sky Sketch**, ask kids if they see clues or evidence of any precipitation or significant weather changes.

Do they see any signs that extreme weather is coming? Do they see any evidence of past extreme weather events? Invite them to share their observations, why they think what they see is an indication of past or future extreme weather, and write them in their journals.

Follow up on your **World Weather Wise activity** and talk more about the weather and climate of this location. Discuss what weather this location is currently experiencing, if they see evidence of extreme weather, and ask kids how they can tell and what kind of weather this location is having.

Repeat the Daily Weather Walk every day.

Weather Movement

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Weather yoga

Extreme weather can be stressful. But weather yoga can help kids relax and get into a peaceful state of mind. You can invent your own weather yoga poses or try these weather-themed poses from Kids Yoga Stories (https://www.kidsyogastories.com/weather-activities-for-kids-yoga/).

1. Sunny — Extended Mountain Pose

Stand tall in Mountain Pose, inhale, look up, take your arms straight up to the sky, and say hello to the Sun. You can then exhale and bring your arms back down alongside your body. Repeat the inhale, raising and lowering your arms, for a few breaths and imagine soaking up rays of sunshine.

2. Windy — Tree Pose

Stand on one leg. Bend the knee of the leg you are not standing on, place the sole of your foot on the opposite inner thigh or calf, and balance. Sway like a tree in the wind. Switch sides and repeat the steps.

3. Lightning — Chair Pose

Stand tall with your feet hip-width apart, bend your knees, and keep a straight spine. Hold your hands up in front of you with straight arms, pretending to be a lightning bolt.

4. Rain — Standing Forward Bend

First get into Mountain Pose — Stand tall with your feet hip-width apart, back straight, shoulders relaxed, and palms forward, fingers spread out. Next, bend your upper body, keep a straight spine, and reach for your toes. Pretend your arms are falling raindrops.

5. Snow — Child's Pose

Sit back on your heels, slowly bring your forehead down to rest on the floor in front of your knees, rest your arms down alongside your body, and take a few deep breaths. Pretend to be a snowflake falling from the sky. Take a few deep breaths.

6. Cloudy — Easy Pose

Sit cross-legged and rest your palms on your knees. Close your eyes, if you are comfortable doing so. Imagine being a cloud floating across the sky. Take a few deep breaths and relax your body.

Writing About Weather

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Recipe for disaster

Have kids create a serious or silly recipe for a storm. What "ingredients" have to come together in the atmosphere to make a thunderstorm, hurricane, blizzard, or hailstorm? Provide samples of recipes and talk about what a recipe is — a list of ingredients and the steps you need to take to make something with them. Have kids list their ingredients and write the steps needed to mix up their storm.

Twisting off the page

Kids can make their words swirl and twirl when they create a concrete poem in the shape of a tornado.

How to Write a Concrete Poem: https://poetry4kids.com/lessons/how-to-write-a-concrete-poem/

Map to safety

Invite kids to map out and write down their plan to stay safe in extreme weather or other emergencies. Families need to know what to do and where to go if they are not safe at home because of a natural disaster. Kids can help make those plans for getting to a safe place with the people they care about. Have kids talk with their families about what kind of weather emergencies happen in their communities and what they can do to stay connected to each other and safe. Kids can then do the following:

- Make a paper contact list with names and phone numbers of your family and people you care about so you can reach them in a disaster.
- Pick meeting places outside of the neighborhood you live in to reunite if your family gets separated during the disaster and can't go home.
- Make a map and make sure that everyone knows where the meeting places are and practices getting to them.

Writing About Weather

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Every photo tells a story

What's happening in this photograph? Present this image or other storm related images to kids and have them use it as a prompt to write a short piece of realistic fiction.

NOAA Photo Library: https://photolib.noaa.gov/Collections

Kid-Friendly Digital Media

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Apps

Kids Discover Extreme Weather App $
http://kidsdiscover.com/apps-for-kids/extreme-weather-app-for-ipad/

Online games

Disaster Master and Build a Kit
https://www.ready.gov/kids/games

Create a Snowstorm
https://scied.ucar.edu/interactive/create-snowstorm

Forecast a Hurricane
https://scied.ucar.edu/interactive/forecast-hurricane

Make a Hurricane
https://scied.ucar.edu/interactive/make-hurricane

Hurricane Allie
https://scied.ucar.edu/kids/interactive/hurricane-allie

Make a Thunderstorm
https://scied.ucar.edu/interactive/make-thunderstorm

Create a Snowstorm
https://scied.ucar.edu/interactive/create-snowstorm

Funny Fill-In: The Fast and the Flurryous
https://kids.nationalgeographic.com/games/funny-fill-in/article/funny-fill-in-the-fast-and-the-flurryous

Kid-Friendly Digital Media

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Websites

Severe Weather 101
https://www.nssl.noaa.gov/education/svrwx101/

Weather Center
https://kids.nationalgeographic.com/science/topic/weather

Tornadoes
https://kids.nationalgeographic.com/science/article/tornado

WeatherSTEM
https://www.weatherstem.com

What Is Climate Change?
https://www.amnh.org/explore/ology/climate-change

Video

Severe Weather: Crash Course Kids
https://youtu.be/QVZExLO0MWA

Explore Severe Weather with NOAA Weather Briefly
https://www.youtube.com/playlist?list=PLowCkjeYmJBSnckPFd0T8huUZjqDLS3Jy

The Weather Channel: Connect with Weather
https://vimeo.com/101526273

What's With Weather Fronts?
https://youtu.be/8KNzii1yJuw

Kid-Friendly Digital Media

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NASA's Earth Minute: Earth Has a Fever
https://youtu.be/nAuv1R34BHA

Understanding Lightning: Slow Motion Video of Lightning Flashes
https://www.weather.gov/safety/lightning-science-slow-motion-flashes

The Story of Man-Kah-Ih (Tornado)
https://www.pbslearningmedia.org/resource/momaday19-native-american-mythology-video-gallery/n-scott-momaday/

Podcast

Wow in the World: The Curious Case of the Everlasting Storm
https://www.npr.org/2018/07/20/630920368/the-curious-case-of-the-everlasting-storm