

My Weather Detective Activity Book

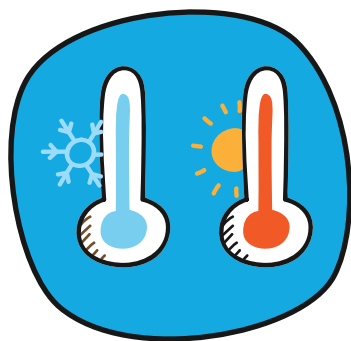


Name _____

Date _____



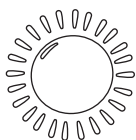
Name _____ Date _____



Daily Weather Log

Let's detect weather trends by logging the weather each day! Is it sunny, cloudy, rainy, stormy, snowy, or windy today?

Today's weather is: (color one)



SUNNY



CLOUDY



RAINY



STORMY



SNOWY



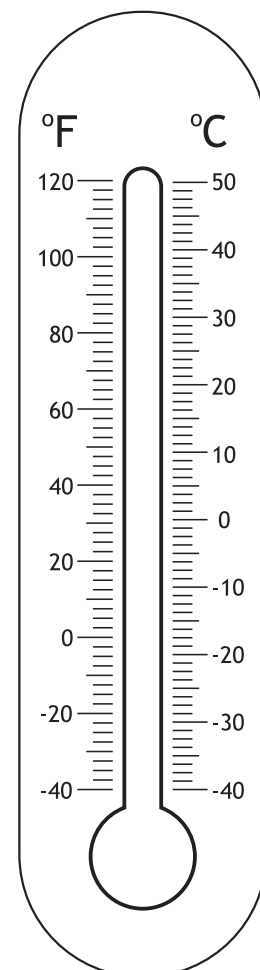
WINDY

Date: _____

Amount of rainfall: _____

Color in the thermometer to show the average temperature today.

Draw the weather!

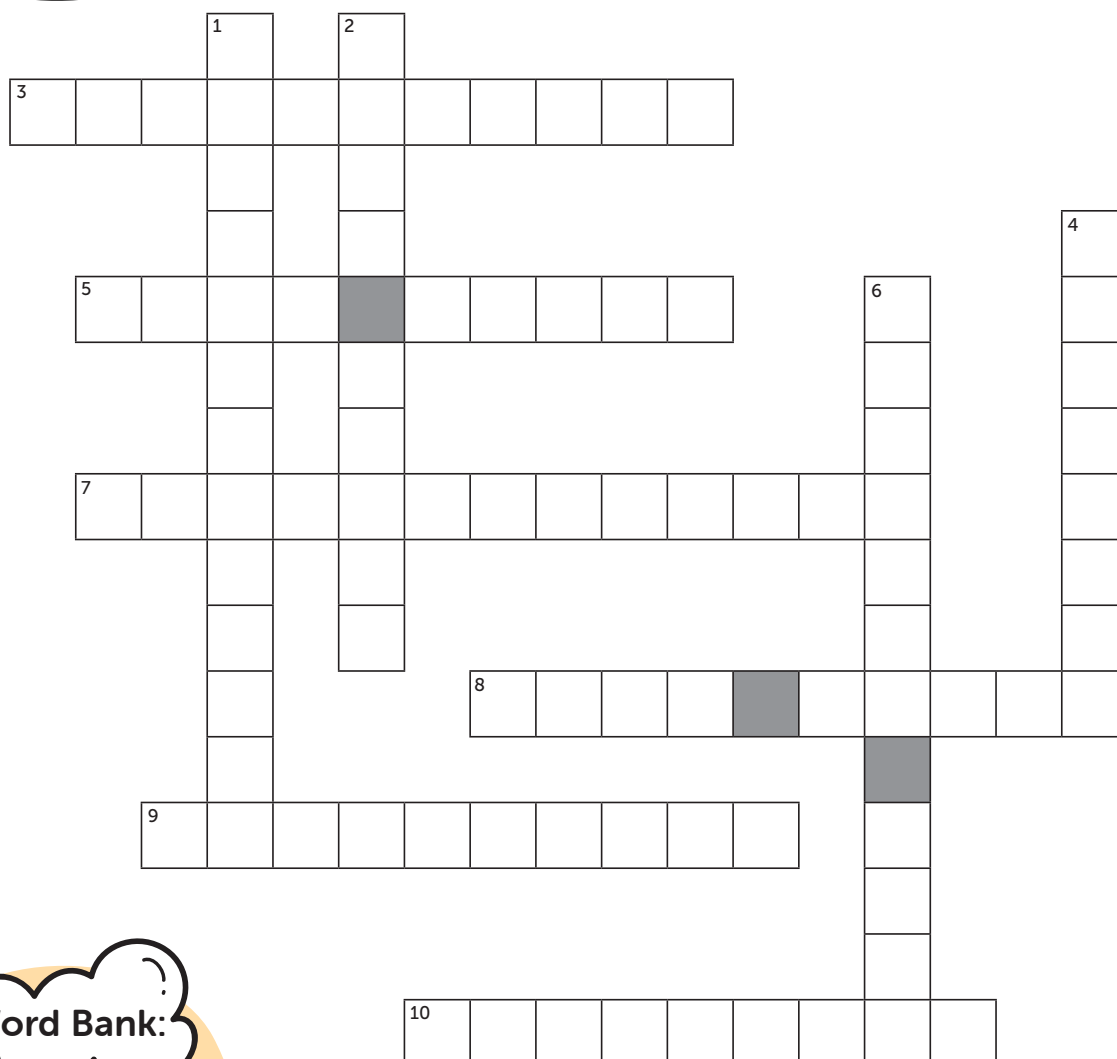


Name _____ Date _____



Weather Tools and Terms Crossword

To be a weather detective, we need to understand the tools and terms of the trade. Investigate the clues below to fill out the crossword puzzle.



Word Bank:

Thermometer
Anemometer
Meteorologist
Weathervane
Rain Gauge
Forecast
Barometer
Cold Front
Warm Front
Precipitation

Clues:

1. Rain, snow, sleet, or hail that falls to the ground.
2. The movement of cooler air into an area of warmer air.
3. Used to measure temperature, often in a tube with a column of mercury liquid inside.
4. Prediction of what the weather will be.
5. An instrument that measures the amount of rainfall.
6. A device that rotates to point in the direction of the wind.
7. A scientist who studies and predicts the weather.
8. The movement of warmer air into an area of cooler air.
9. An instrument that measures wind speed.
10. An instrument that measures air pressure.

Name _____ Date _____

Investigate Wild Weather

Let's detect those storms! Color the pictures of the storm types found on the icon sheet. Then, cut out each square and paste it next to the correct storm description.



A storm that includes lightning and thunder often with heavy rain and winds



A storm where damaging balls of ice fall to the ground



A windy snowstorm with heavy, fine snow



A high sea wave caused by a hurricane or eruption under water



Damaging wind within a funnel-shaped cloud



A tropical cyclone storm with very high wind speed



A storm where freezing rain falls



A wind carrying large amounts of dust and debris



What are some ways we can stay safe from wild weather?



Name _____ Date _____

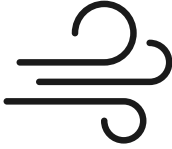







ACTIVITY

3

Investigate Wild Weather

Cut and Paste Icons

Cut out each square and paste it next to the correct storm description.

| | |
|--|--|
|  Dust Storm |  Tsunami |
|  Hurricane |  Tornado |
|  Ice Storm |  Blizzard |
|  Hailstorm |  Thunderstorm |

Name _____ Date _____



Weather Around the World

Let's investigate! Weather or climate?

Directions: Read through definitions below and look at each statement. Decide if it's an example of weather or climate and circle your answer.

Weather:
Daily changes in conditions such as wind, rain, or sun. These are short-term conditions that change often.

Climate:
Typical weather conditions over many years in a region. It is the average weather for a particular area.

Weather? or Climate?

Average weather conditions over a 30-year period.

Weather? or Climate?

What it's going to be like outside tomorrow.

Weather? or Climate?

It was thundering during dinner last night!

Weather? or Climate?

Maine averages up to 70 inches of snow each year.

Weather? or Climate?

Rain forests experience warm temperatures year-round.

Weather? or Climate?

I heard on the news it's going to be sunny all week long.

Climates Around the World

Directions: Review the six different climates and take a look at the map. Match each climate zone with its area on the globe. Color in each different climate zone, and be sure to color in the key next to each.



Map Key:

☐ **Polar:** Very cold and dry throughout the year. Found in Alaska and the Arctic.

☐ **Temperate:** Cold winters and mild summers. Found in parts of North America and Europe.

☐ **Arid:** Very dry and hot. Found in northern Africa and the southern United States.

☐ **Tropical:** Warm temperatures year-round with lots of rainfall. Found in areas of South America and Africa.

☐ **Mediterranean:** Hot and dry summers with cool, wet winters. Found in areas of Europe.

☐ **Tundra:** Mountain areas that are cold year-round. Found in small areas of South America and central Asia.

Teacher Instruction and Answer Key

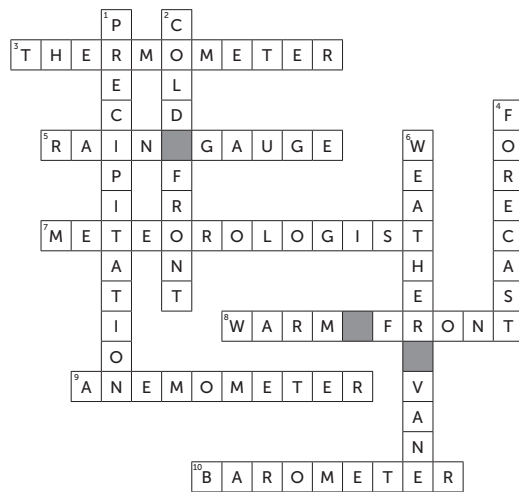


ACTIVITY 1: Tracking the Weather

Have students take note of daily weather measurements. They can watch the news, find the [weather online](#), or review the weather as a class to fill in a tracking journal each day.

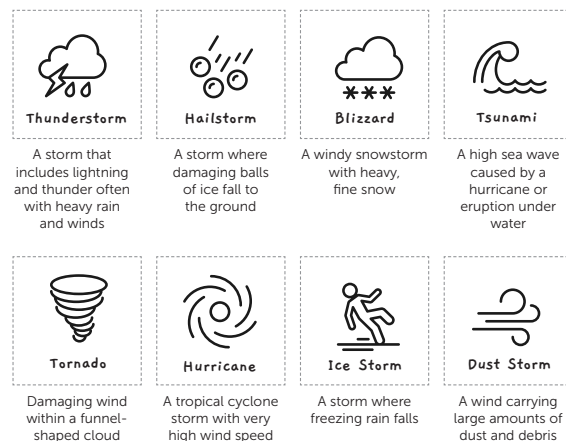
ACTIVITY 2: Weather Tools and Terms

Students will learn about 10 different weather tools by completing a crossword puzzle. You may want to review the tools and terms ahead of time to make the puzzle easier. Answer Key:



ACTIVITY 3: Wild Weather

Using the icon sheet provided, have students color each storm icon. Then, they will cut out each icon and paste it onto their activity sheet next to the correct description. Explore more about wild weather events with facts about [hurricanes](#), [hail](#), and [snow](#). Answer Key:



ACTIVITY 3: Ways To Stay Safe From Wild Weather

Students will write about knowledge they already have on ways to stay safe from storms and brainstorm new precautions that would be smart to take. Try using guiding questions such as: What should you do when there is a [tornado warning](#)? (Go to the lowest floor of the building.) What should you do if there is a heavy thunderstorm? (Stay away from windows.)

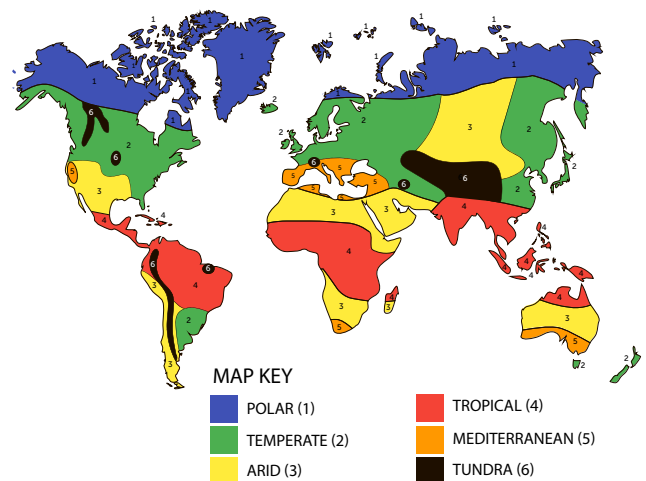
ACTIVITY 4: Weather Around the World

Students will be able to determine the difference between weather and climate by reading the definitions and answering questions. Then, they'll learn about the climate zones around the world using a map. Weather vs. Climate Answer Key:

| | |
|-----------------------------|---|
| Weather? or Climate? | Average weather conditions over a 30-year period. |
| Weather? or Climate? | What it's going to be like outside tomorrow. |
| Weather? or Climate? | It was thundering during dinner last night! |
| Weather? or Climate? | Maine averages up to 70 inches of snow each year. |
| Weather? or Climate? | Rain forests experience warm temperatures year-round. |
| Weather? or Climate? | I heard on the news it's going to be sunny all week long. |

ACTIVITY 5: Climates Around the World

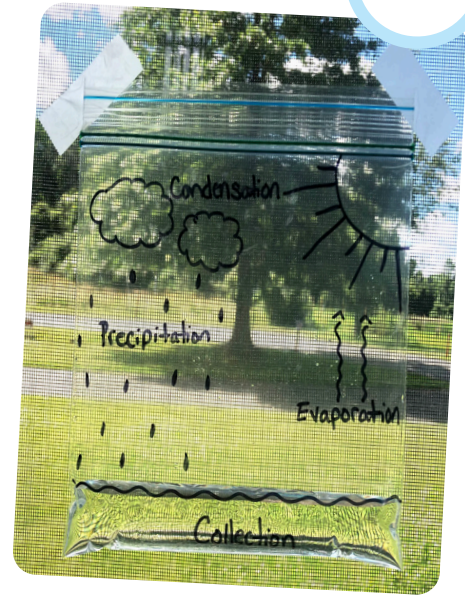
Have students color in each climate zone and note in the square next to each zone name the color they used.



Water Cycle in a Bag

Before starting this activity, you'll need the following supplies:

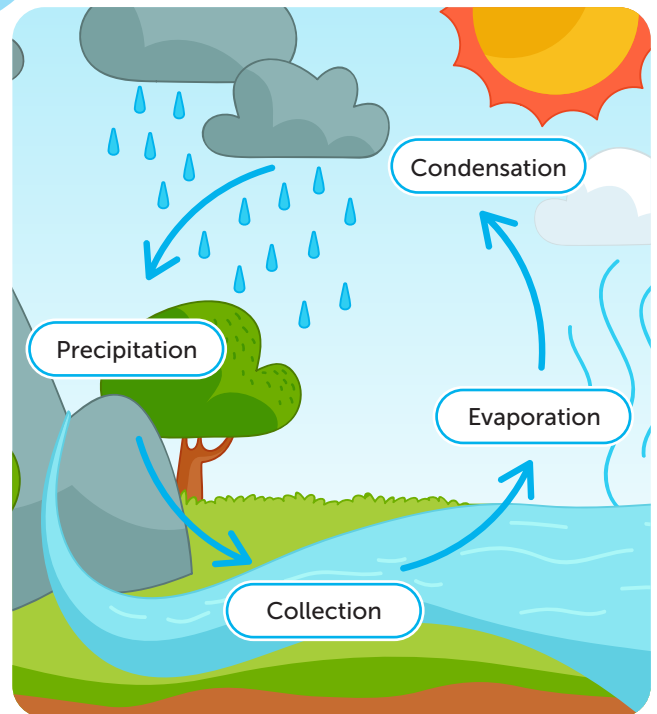
- A sandwich bag for each student
- Permanent markers (soft felt-tip)
- 1/3 cup water (It might be helpful to have this already divided up into small cups for students.)
- Blue or green food coloring (optional)
- Tape
- Printed student observation sheets



You can demonstrate the water cycle right in your classroom window! Students will explore the water cycle by creating their own demonstration inside a sandwich bag that's taped to a sunny window. Water inside the bag will heat up as the sun hits the window, causing evaporation. Then, as the water cools down, it will condense and fall back to the bottom of the bag (just like rain!).

Steps:

- 1 Gather your materials and make sure each student has what they need.
- 2 Have students smooth out their sandwich bags on their desks.
- 3 Students will use the permanent marker to draw the water cycle by using the example on the student sheet. Make sure students don't press too hard and put a hole in the bag!
- 4 Pour 1/3 cup of water into the bag. For fun, you can add some blue or green food coloring to the bag.
- 5 Tape the bag up on a window that you know will get a lot of sun. Make sure it's positioned at a slight angle so that students can simulate the runoff and collection stages of the cycle.
- 6 Throughout the next few days, have students check their water cycle bag and use their sheet to collect their observations.



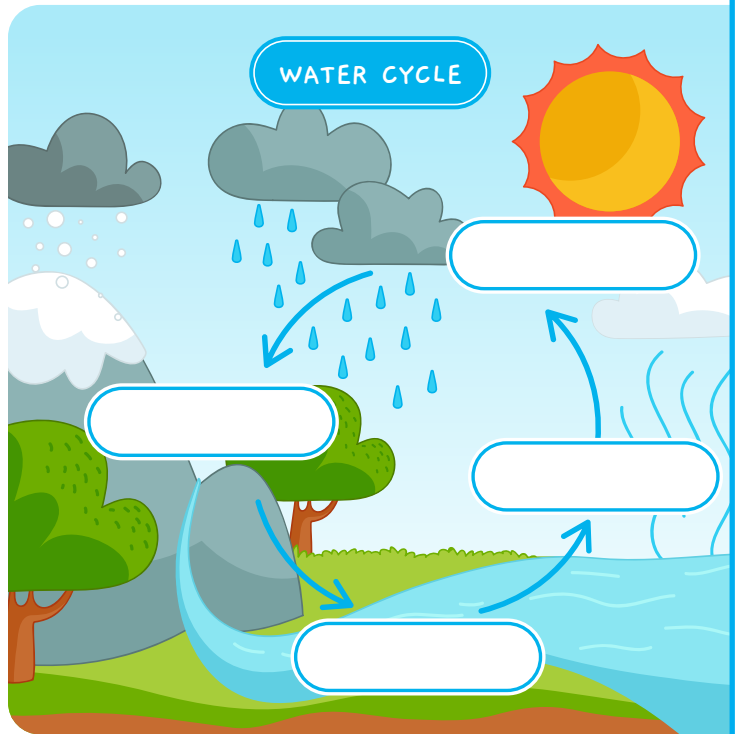
Name _____ Date _____

Water Cycle in a Bag

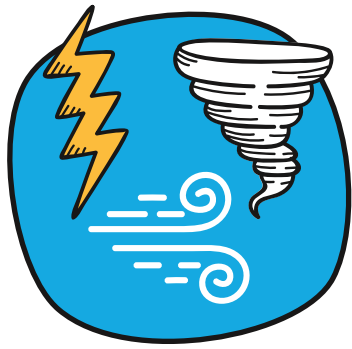
Directions:

Label the water cycle drawing below. Over the course of the week, use the table to record your observations of your water cycle bag. Use these questions as a guide when you're writing out your observations:

1. What do you notice?
2. Do you see water droplets or water streaks?
3. What changes do you see over time?



| Day | Observation Notes |
|-----|-------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |



Planning for an Emergency

Dear Families,

Your child has been studying different types of weather and patterns in class. We have also been discussing the importance of preparing for natural disasters that happen due to changes in weather. Your child has learned that it is essential to be prepared for emergencies or natural disasters with a plan and emergency kit.

A great way to be prepared for severe weather is to make a household plan. With this worksheet, you can use the spaces provided to create an emergency plan and discuss what to do in case of a severe weather warning. Also, see the provided checklist to start your emergency-preparedness kit. Remember to check for expired items periodically.

A list of updated emergency phone numbers is helpful to have on hand. Use the chart below to keep these important numbers all in one place. By doing this, you're ensuring that everything is ready to go in the event of a disaster. It's important to check in with your family to make sure everyone is always up-to-date on the plan, and these sheets are a great resource for doing so.

Thank you,

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| Important Contacts | |
|--------------------|--------------|
| Name | Phone Number |
| | |
| | |
| | |
| | |

| Local Emergency Contacts | |
|--------------------------|--|
| Police Department | |
| Fire Department | |
| Hospital | |
| Poison Control | |
| Doctor | |

Severe Weather Plan

Discuss the following questions as a family to be sure you have a plan to take shelter from severe weather.

1. What type of weather do I need to take shelter from?

2. Where should we go in the house if there is a severe weather warning?

3. What if I am not home and there is a weather emergency?

4. What should I do if I'm home alone and there is a weather emergency?

5. Where do we keep emergency supplies?



Emergency Kit Essentials

According to the Federal Emergency Management Agency, you should at least have an emergency supply of food and water that can last for several days. Use this checklist to create your emergency kit.

Gear

- Batteries
- Flashlight
- Waterproof matches
- Foil blanket
- Fire starter
- Local map
- Whistle
- Pots and pans
- Generator



Food

- Canned meats
- Canned fruits
- Canned veggies
- Water (a gallon per person, per day, for several days)
- Utensils
- Wet wipes
- Rice
- 3-day supply per person of non-perishable foods



First Aid

- Antibiotic ointment
- Antiseptic wipes
- Scissors
- Bandages
- Thermometer
- Latex gloves
- Burn cream

