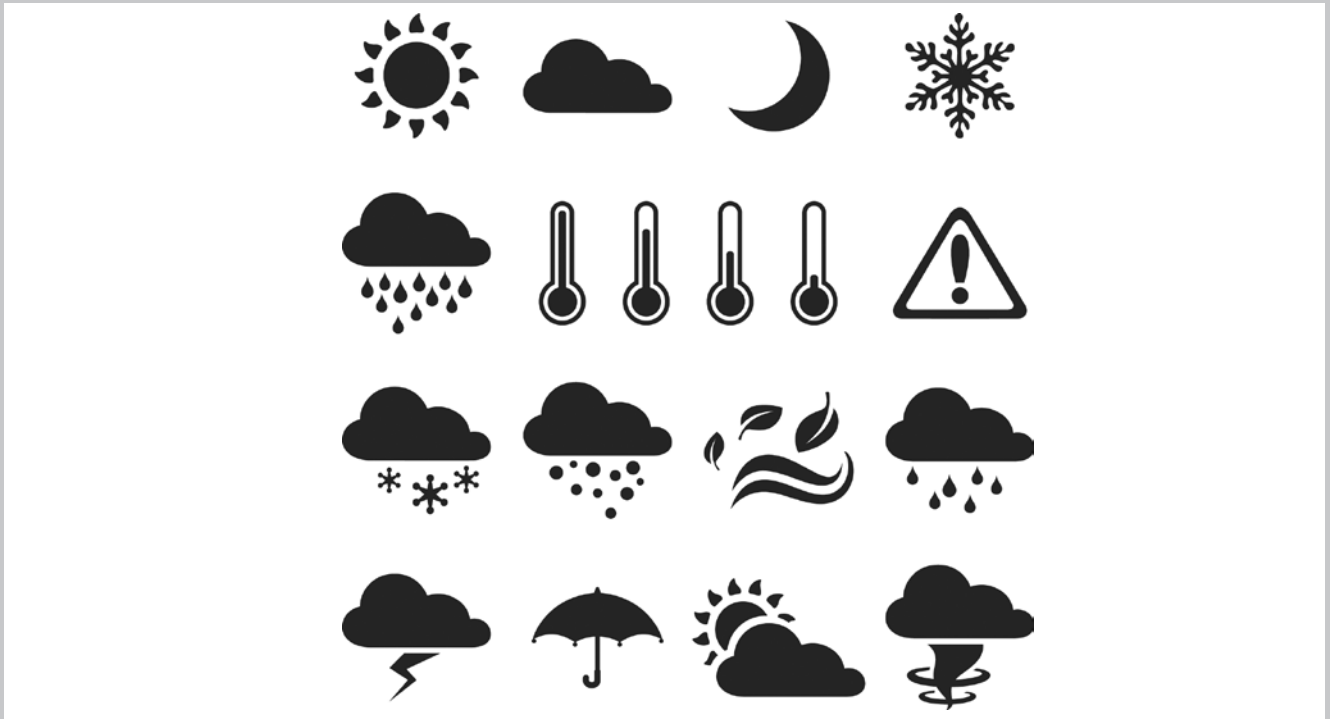


# Weather Watch



Weather

# Weather Watch



## Teacher Notes

### Key Concepts

Weather patterns and conditions change from day to day and affect our daily lives and the world around us.

### National Science Education Content Standards (1996)

#### *Unifying Concepts and Processes*

- Evidence, models, and explanation
- Systems, order, and organization
- Constancy, change, and measurement

#### *Science as Inquiry*

- Abilities necessary to do scientific inquiry
- Understanding about science inquiry

#### *Earth and Space Science*

- Changes in earth and sky

### Process Skill Objectives

Collecting data, communicating, experimenting, formulating hypotheses, inferring, interpreting data, observing, predicting

### Family Science Packet Summary

In this activity, students will record the weather they see over 5 days. They will track the type of weather they see, the wind they feel, and the color of sky they see.

### Activity Duration

Allow 4–5 days to complete this activity.

### Materials Needed

*From School:*

Per student — 1-gallon plastic bag, 1 Observation Record





## Background Information

- *Weather* is the state of the atmosphere at a specific time (different than *climate*).
- Temperature varies according to latitude, longitude, elevation, season, and time of day.
- As air cools and rises, clouds are formed. There are three major types of clouds: *stratus*, *cirrus*, and *cumulus*.
- Rain, sleet, snow, and hail are produced when water droplets and crystals in the clouds grow large enough to fall to the ground.
- Wind is the horizontal movement of air.
- Weather changes from day to day, week to week, and season to season.

## Pre-Activities

- Introduce this activity to the students by discussing the following questions: “What is the difference between winter and summer? Does the weather change daily? How does weather affect our lives?” Review the basic steps of this activity including data collection.
- Create initial experiences where students can explore the world of weather. Chart daily, monthly and seasonal weather patterns during class meeting or calendar time. Collect this data over a period of time, chart (pictograph, line graph, bar graph, etc.), and make generalizations when appropriate. Structure activities to involve analyzing and recording observations in a variety of ways.
- Go outside of the classroom several times during a day/week and note the weather. Predict and discuss why and how the weather changed during the day. Keep an hourly record of the weather. Discuss with students why weather is different throughout the seasons. Also, discuss with students how weather can change so rapidly throughout a single day.
- Provide opportunities for students to research specific interests, curiosities, and basic information about weather. Provide and encourage the use of multiple sources of information. Have students share their learning in a variety of ways.
- Integrate literacy with science learning. Read and study *A Busy Year* (Lionni, 2004).

## ***U-STARS~PLUS Science & Literature Connections***

*Bringing the Rain to Kapiti Plain* - Verna Aardema

*Cloudy With a Chance of Meatballs* – Judi Barrett

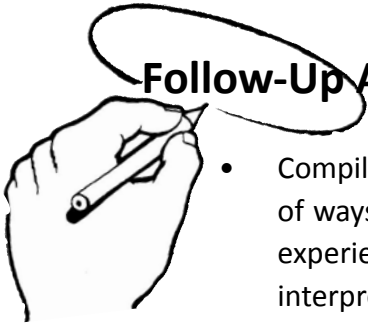
*Come on, Rain!* – Karen Hesse

*The Snowy Day* – Ezra Jack Keats

*What Will the Weather Be Like Today ?*– Paul Rogers



### **Follow-Up Activities**



- Compile, analyze, synthesize, and share the data returned from home in a variety of ways. Look at total numbers of sunny, rainy, and cloudy days; types of weather experiences in the week; level of wind; and variances with locations. Discuss and interpret student hypotheses and data. Generalize the data to determine student findings and discoveries. Ask related questions to understand and expand students' thinking. Provide opportunities to further investigate questions and related topics.
- Investigate weather patterns and the relationship of different types of weather. Investigate how weather affects our daily living. What adaptations do animals, people, and other living things need to do to survive in different weather? Create a play, song, or poem to share findings.
- Discuss which types of weather usually occur together. Which type of weather comes before another type? How do types of weather relate to each other?
- Create an “our season” wall in your classroom. Go on nature walks each season and have students make observations about what they see, hear, smell, touch, and feel. Collect or take pictures of items that represent the season, such as natural realia or clothes. Keep a record of these observations on the wall, along with temperature recordings, weather charts, descriptive words, poems, or drawings.

# Weather Watch



## Family Science Activity

**Due Date:** \_\_\_\_\_

### This activity helps you learn about...

*Earth patterns, Weather*

- changes, different types

### This activity involves...

Collecting data, communicating, experimenting, formulating hypotheses, inferring, interpreting data, observing, predicting

### Activity Duration

Allow 4–5 days to complete this activity.

### What do we need?

*From School:* 1-gallon plastic bag, 1 Observation Record

### What are we doing?

Weather changes all of the time. One day it may be sunny and the next day it may be rainy. Some days it is both sunny and rainy! In this activity, your scientist is going to track the weather so we can study and better understand it.

### How are we going to do this?

In this activity, you will watch and record the weather you see over 4 days. You will track the type of weather you see, the wind you feel, and the color of sky you see.

**Day 1** 

1. Before you start, predict the weather for the week. Use today's weather to guide you. Record your predictions on your Observation Record.
2. On Day 1, pay close attention to the weather outside. After school, pick a weather symbol that best describes the weather you experienced this day. Circle the weather symbol for Day 1 on your Observation Record.
3. Notice the wind. How windy is it? Circle the set of words that best describes the wind for Day 1 on your Observation Record.
4. Look at the sky in the morning and in the evening. Describe how the sky looks for both the morning and the evening for Day 1 on your Observation Record.

 **Days 2–4**

5. Repeat Steps 2–4 for the next 3 days.
6. Finish your Observation Record and discuss the Family Time Questions that follow.
7. Return your Observation Record and packet to school by the date due.



## Family Time Questions

1. Did you have days when you could have used more than one symbol? Why do you think this happened?
2. How many days were windy? What kinds of weather did you have these days? How did the wind relate to the other weather?
3. Looking back at your morning sky drawings across the week, what was the same and what was different about the sky in the morning?
4. Looking back at your night sky drawings across the week, what was the same and what was different about the sky at night?

## Family Notes:

- Your scientist may need help in deciding weather and wind types because of changes throughout the day. Please encourage your scientist to pick one type of weather.
- When your scientist is drawing sky pictures, consider the sun; the moon, and its shape; and cloud type and color.
- On the Observation Record, all responses are acceptable; no answer is right or wrong. For the “I discovered” section, any thoughts are welcome.
- Encourage your scientist to record what she or he observes and thinks about the activity. Words or drawings may be used to record the observations.
- Your scientist may need help to complete the activity and fill out the Observation Record. Please partner with your child on this activity.



# Family Science Observation Record

# Weather Watch













Name: \_\_\_\_\_

Date: \_\_\_\_\_











**Hypothesis:** During the next week, I predict the weather will be \_\_\_\_\_

Complete the chart below. Use words and/or drawings.

Date	Weather Symbol Circle (Today's Weather)	Wind	Morning Sky	Evening Sky
<b>Day 1</b>  _____/_____ Month/Date	Sunny 	No wind		
	Cloudy 	Slightly windy		
	Stormy 			
	Rainy 	Very, very windy		
	Snowy 			
<b>Day 2</b>  _____/_____ Month/Date	Sunny 	No wind		
	Cloudy 	Slightly windy		
	Stormy 			
	Rainy 	Very, very windy		
	Snowy 			



(Continued)

Date	Weather Symbol Circle (Today's Weather)	Wind	Morning Sky	Evening Sky
<p><b>Day 3</b></p> <p>____/____</p> <p>Month/Date</p>	<p>Sunny </p> <p>Cloudy </p> <p>Stormy </p> <p>Rainy </p> <p>Snowy </p>	<p>No wind</p> <p>Slightly windy</p> <p>Very, very windy</p>		
<p><b>Day 4</b></p> <p>____/____</p> <p>Month/Date</p>	<p>Sunny </p> <p>Cloudy </p> <p>Stormy </p> <p>Rainy </p> <p>Snowy </p>	<p>No wind</p> <p>Slightly windy</p> <p>Very, very windy</p>		