



Grades K-4

Overview:

Elders and scientists alike use Weather Observation Journals to note patterns in the weather and to have a written record of stories and information shared by others that can be used to predict and prepare for weather. In this activity, the class will keep a weather pictograph for one month. At the end of the month, they will examine their entries and note any patterns or connections they find between various weather features.

Objectives:

The student will:

- observe their surroundings;
- listen for stories and sayings regarding the weather;
- compare classmates' observations; and
- look for patterns and connections between various weather phenomena.

GLEs Addressed:

Science

- [3-4] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.
- [3] SD3.1 The student demonstrates an understanding of cycles influenced by energy from the sun and by Earth's position and motion in our solar system by using recorded weather patterns (e.g., temperature, cloud cover, or precipitation) to make reasonable predictions.

Math

- [3] S&P-2 The student demonstrates an ability to analyze data (comparing, explaining, interpreting, or justifying conclusions) by using information from a variety of displays (tallies, tables, pictographs, bar graphs, or [Venn diagrams L] (M6.1.2).

Materials:

- CLASS PICTOGRAPH: "Weather Pictograph"
- Chart paper
- Markers
- Glue or tape
- Weather pictures for pictograph
- Weather-related stickers

Activity Procedure:

Each day before discussing the weather, read "Chester Noongwook's Rules of Weather Observation" found on the included TEACHER INFORMATION SHEET.

1. Prepare a large pictograph to record weather observations for one month. Teachers can enlarge the pictograph provided with this lesson plan, or draw their own on chart paper.
2. Instruct students to observe the weather (wind, clouds, temperature, etc.) as they come to school. Explain that they should be ready to discuss the weather in class each morning. Encourage them to talk about the weather with older siblings, parents, or Elders. Award a small weather-related sticker to the first three students who can tell you about the weather each day. (Be sure to give all students a chance to earn a sticker.)

3. One student each day (including weekends) will be the designated weather person.
4. Explain that each day for a month, students will be given a few minutes during class to discuss and allow the weather person to record their weather observations for that day on the pictograph. Students will record their observations by selecting pictures from those provided that accurately describe the wind direction, the strength of the wind (no wind, a little windy, very windy), the sky conditions (rain, snow, cloudy, sunny), and the relative temperature (colder, warmer). Once they have selected the appropriate pictures, they will cut them out and glue or tape them onto the pictograph in the calendar square for that day.
5. At the end of the month, students will discuss their weather observations and look for connections between weather phenomena, such as cooler temperatures when the wind blows from the south, and patterns, such as three days of cold followed by three days of warm weather.
6. Use chart paper to write a list of connections and patterns students found between weather phenomena, such as wind followed by rain.
7. Post both the pictograph and the list in the classroom for students to view.

Answers:

Answers will vary.

Chester Noongwook's Rules of Weather Observations

Teacher Information Sheet

Read the following to students each day before discussing the weather:

Chester Noongwook's Rules of Weather Observations

- First thing, get out early in the morning, and check the wind and the sky conditions, whether the sky is cloudy, and also whether it is cold or warm in terms of your body feeling;
- In the old days, we always used to go down to the sea shore every morning—to check the ice and weather conditions at the water (sea level), how the current is moving, and where is the tide;
- Always talk to other people about weather and ice conditions; listen to other people's minds to see whether it is good to go out hunting;
- Check for any change in wind and weather condition; we are told to watch out for weather all the time, either we are on the ice or on shore—every hour, every minute or listen to other boats what they are saying;
- Keeping watching for any change in water because of currents or clouds or waves—any sign of water change is very important;
- You can never make a good forecast for tomorrow based upon today's weather. Better go out and check it in the evening. Make a guess and check it next day: it is better to see whether it is correct or not.

From: *Watching Ice and Weather Our Way*, by Conrad Oozeva, Chester Noongwook, George Noongwook, Christina Alowa, and Igor Krupnik.

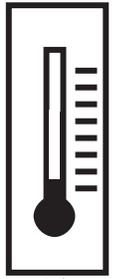
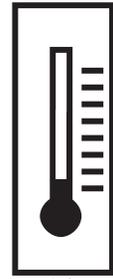
Weather Pictograph

Class Pictograph

Use students' daily observations to fill in the calendar below. For each day, list the wind direction, the strength of the wind (no wind, a little windy, very windy), the sky conditions (rain, snow, cloudy, sunny), and the relative temperature (colder, warmer).

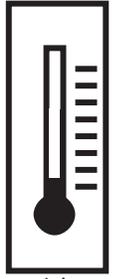
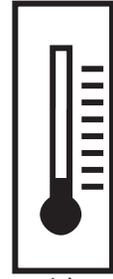
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Weather Pictures



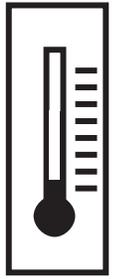
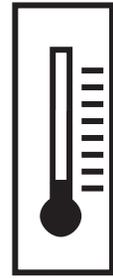
colder

colder



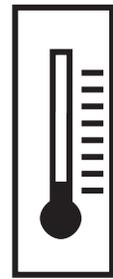
colder

colder



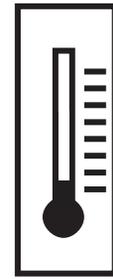
colder

colder



colder

colder

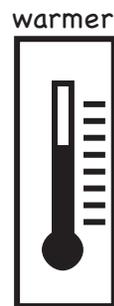
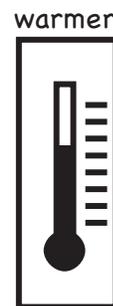
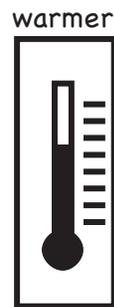
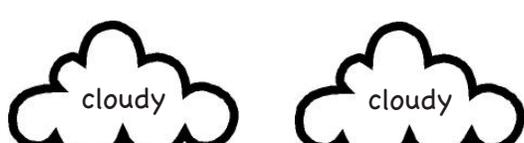
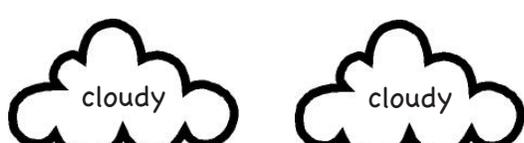
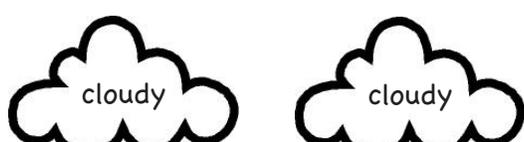
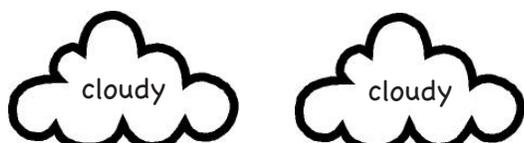
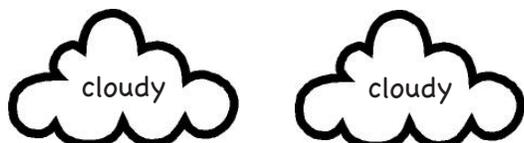
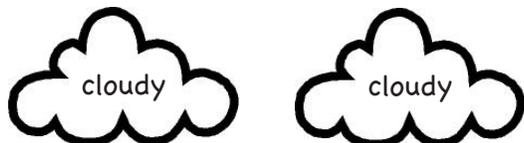
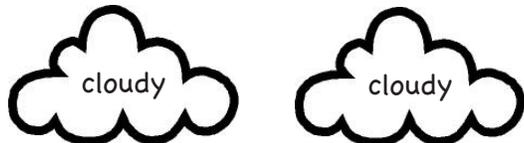
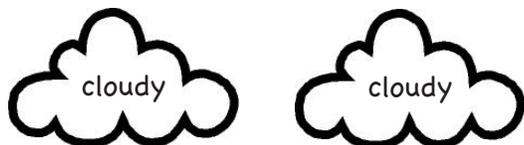


colder

colder



Weather Pictures

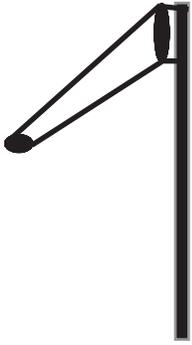


Weather Pictures

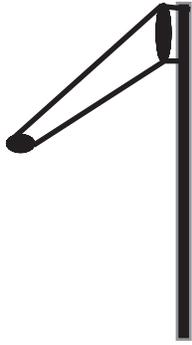
	south wind		north wind		east wind		west wind		no wind		no wind
	south wind		north wind		east wind		west wind		no wind		no wind
	south wind		north wind		east wind		west wind		no wind		no wind
	south wind		north wind		east wind		west wind		no wind		no wind
	south wind		north wind		east wind		west wind		no wind		no wind
	south wind		north wind		east wind		west wind		no wind		no wind
	south wind		north wind		east wind		west wind		no wind		no wind

Weather Pictures

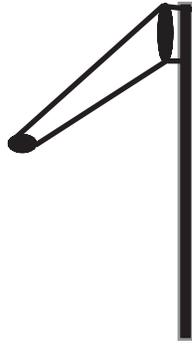
a little windy



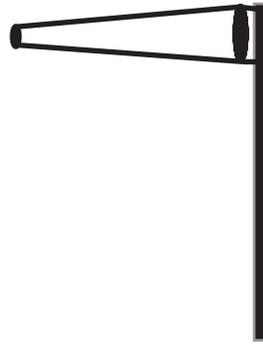
a little windy



a little windy



very windy



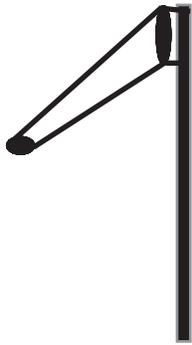
very windy



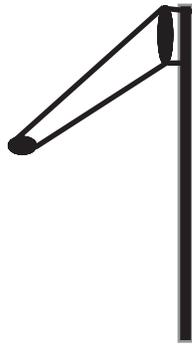
a little windy



a little windy



a little windy



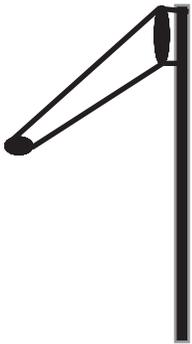
very windy



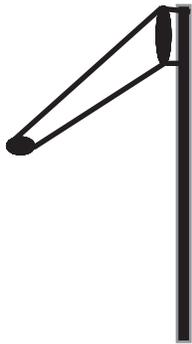
very windy



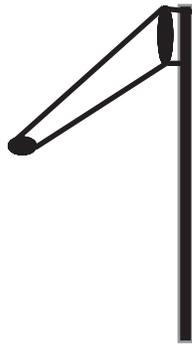
a little windy



a little windy



a little windy



very windy



very windy



a little windy



a little windy



a little windy



very windy



very windy

