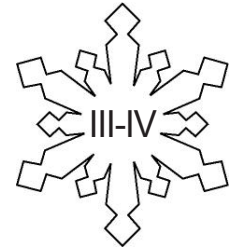


Analog Forecasting

Levels



Grades 5-8

Overview:

How do meteorologists forecast the weather? In this activity, students will learn one of the 5 main methods for forecasting weather, utilize it to do their own forecast, and analyze their results. Note: This activity requires time on the following day to analyze results.

Objectives:

The student will:

- understand the analog method of forecasting; and
- make a weather prediction using the analog method.

GLEs Addressed:

Science

- [5-8] 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.
- [7] 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 describing the weather using accepted meteorological terms (e.g., pressure systems, fronts, precipitation).

Materials:

- Computer with Internet access
- STUDENT WORKSHEET: "Analog"

Activity Preparation:

1. Access a copy of today's weather report, which includes high and low temperature, sky conditions, precipitation likelihood, and wind speed, by doing one of the following:
 - a. Navigate to www.nws.noaa.gov, type in your city and state in the upper left hand corner where it says "Local forecast by "City, St." Click go.
 - b. Find a local weather report in the local newspaper.
2. Make copies of the weather report so that each student will have a copy.

Activity Procedure:

1. Remind students that meteorologists have several ways of forecasting the weather. Review the trends, persistence, and climatology methods of forecasting.
2. Explain that a fourth method of forecasting weather is called the analog method. Using this method, one finds a day in history that had the same weather as today and assumes that the weather that followed that day will be the weather for tomorrow.
3. Distribute the STUDENT WORKSHEET: "Analog" and the daily weather report.
4. Assist students in completing the worksheet as needed.

Answers:

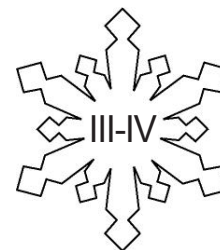
Answers will vary depending upon the weather conditions.

Name: _____

Analog

Student Worksheet (page 1 of 2)

Levels



1. Answer the following questions using the weather report provided by the teacher.
 - a. What is the high temperature for today? _____ ° F
 - b. What is the low temperature for today? _____ ° F
2. Using a computer with Internet access, go to the National Weather Service Web page at <http://www.nws.noaa.gov>. Type in your city and state in the upper left corner where it says "Local Forecast by City, St." Click "Go."
3. Click on the link to "Climatology" under Weather Data on the left side of the page.
4. Click on the "Select a site..." drop-down menu and choose your local community or a community near you. Select the current month and the previous year in appropriate drop-down menus. Click "Go." If no data displays, select a larger community, such as Nome and try again.
4. Find a day on the Climatology page that has the same maximum and minimum temperature within 5° as today. If you cannot locate a date with close enough temperatures, repeat step 4, but chose a different year.
 - a. What date has the same high and low temperatures as today? Include the month, day, and year.

 - b. What are the maximum and minimum temperatures on the National Weather Service Climatology page for the following day?
Maximum Temperature _____ ° F
Minimum Temperature _____ ° F
5. Using the analog method of forecasting, what will the maximum and minimum temperatures be tomorrow?
Maximum Temperature _____ ° F
Minimum Temperature _____ ° F
6. Examine the weather report provided by your teacher. What is the forecast for tomorrow?
Maximum Temperature _____ ° F
Minimum Temperature _____ ° F

Name: _____

Analog

Student Worksheet (page 1 of 2)

7. Was your analog forecast the same as the weather report forecast?

8. Why might the two weather forecasts be different?
