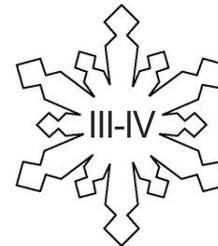


# Persistence Forecasting

Levels



Grades 5-8

## Overview:

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

## Objectives:

The student will:

- understand the persistence method of forecasting; and
- make a weather prediction using the persistence 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 or newspaper with daily local weather report
- STUDENT WORKSHEET: "Persistence"

## 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 <http://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. Distribute copies of the weather report. Discuss elements of the forecast. Ask students how meteorologists forecast weather.
2. Explain there are 5 main ways forecasters predict weather; the class will learn about one—persistence.
3. Ask students if they know what persistence means. Discuss what persistence forecasting might be. Explain with persistence forecasting the forecaster assumes the weather today will be the same as yesterday. For example, if it was 10° F and clear today, it will be 10° F and clear tomorrow.
5. Hand out the STUDENT WORKSHEET: "Persistence." Ask students to complete the Day One section of their worksheets.
6. The following day, repeat the activity preparation and allow students to complete their worksheets.
7. Discuss why the persistence method of forecasting may not be the most accurate method.

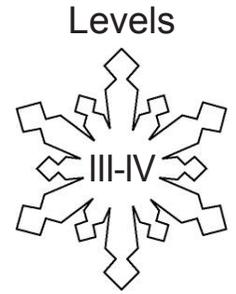
## Answers:

Answers will vary depending upon the weather conditions.

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

# Persistence

## Student Worksheet



### Day One:

Using the weather report provided by the teacher, fill in the weather data for today. If there are a range of numbers, use the highest value.

1. High (Max.) Temperature \_\_\_\_\_ ° F
2. Low (Min.) Temperature \_\_\_\_\_ ° F
3. Wind Speed \_\_\_\_\_ mph
4. Wind Direction \_\_\_\_\_
5. Sky Conditions (Fair, Rain, Cloudy, etc.) \_\_\_\_\_

Using the Persistence method of forecasting, predict what the weather will be tomorrow.

6. High (Max.) Temperature \_\_\_\_\_ ° F
7. Low (Min.) Temperature \_\_\_\_\_ ° F
8. Wind Speed \_\_\_\_\_ mph
9. Wind Direction \_\_\_\_\_
10. Sky Conditions (Fair, Rain, Cloudy, etc.) \_\_\_\_\_

### Day Two:

Examine the weather report provided by the teacher for today and answer the following questions.

11. Was your forecast accurate? \_\_\_\_\_
12. Why might the persistence method of forecasting not be the most accurate?

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