### PERFORMANCE ASSESSMENT IN EARTH SCIENCE

# **Activity Two** What's your forecast?

Vou may get your local weather report in a number of ways. Perhaps you read a daily paper, listen to the radio, watch the weather report on television, or read a forecast on-line. Do you ever try to make your own predictions? Here is a chance to try.

## MATERIALS

graph paper pencil

#### INVESTIGATION

- 1. Decide on your favorite source for a complete weather report. It must be a source that you can consult every day at the same time for 3 days. Have your teacher approve your source.
- 2. Make a chart on your graph paper that shows each of the following variables for 3 consecutive days:
  - sunrise

barometric pressure (rising or falling)

sunset

- percent relative humidity
- temperature: daily high and low
- precipitation

· cloud cover

On the first day, consult your source to determine the extended outlook or 3-day forecast. On your chart, write your own 3-day weather prediction. Base your prediction on current trends, seasonal norms, and your own experience. Your prediction does not need to match official forecasts. At the end of the 3 days, rate the accuracy of the weather reporter's 3-day forecast. Compare your prediction to that of the meteorologist. How accurate was your prediction? How accurate was the forecaster's prediction?

- 3. Make separate graphs to show high and low temperatures and the barometric pressures for the 3-day period. What inferences can you draw about the air masses and fronts that moved through your area during the time?
- 4. Did temperatures vary from expected norms? Explain.

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# INVESTIGATION, continued

5.	On the last day, make another 3-day forecast based on the trends you see. Follow the same weather report for another 3 days and see how accurate you are.			
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6.	What phenomena cause weather patterns to vary from seasonal norms? For example, what factors might contribute to an unseasonably warm day in January or an unusually cool day in August? Go to the Glencoe Science Web Site at <a href="science.glencoe.com">science.glencoe.com</a> to begin your research.	,		

## GOING FURTHER

How does the current weather compare to that of the past? Are the summers hotter? Are the winters colder? Research to discover the average temperatures in your area for each month from 1 year ago, 10 years ago, and 25 years ago. Does a pattern emerge? Record your findings in the chart below and write a paragraph summarizing your findings and conclusions.

	Average Temperature			
	1 year ago	10 years ago	25 years ago	
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				