Name _____ Date _____ Class _____

Lesson Outline

LESSON 3

Weather Forecasts

A. Measuring the Weather

1. Meteorologists measure _____ before making a forecast.
2. A(n) _____ describes a set of weather measurements made on Earth's surface.
3. Measurements include temperature, air pressure, humidity, precipitation, and wind _____ and _____.
4. A(n) _____ describes wind, temperature, and humidity conditions above Earth's surface.
5. A(n) _____ is a package of weather instruments that are carried into the atmosphere by a weather balloon.
6. Satellites provide weather information by measuring the _____ given off by Earth and by taking photographs.
7. _____ images provide information about cloud temperature and height.
8. _____ is a special form of radar that can be used to detect precipitation and approximate wind speed.

B. Weather Maps

1. The _____ model displays many weather measurements for a specific location. It appears on _____.
2. Weather maps have _____, which are symbols made up of lines that connect places that have equal air pressure. These lines give information about _____.
3. _____ are lines that connect places that have the same temperature.
4. _____ are represented as lines with symbols on them.

C. Predicting the Weather

1. Modern weather forecasts are made with the help of _____.
2. _____ are detailed computer programs that solve a set of complex mathematical formulas. The formulas predict _____, winds, precipitation, and types of clouds.

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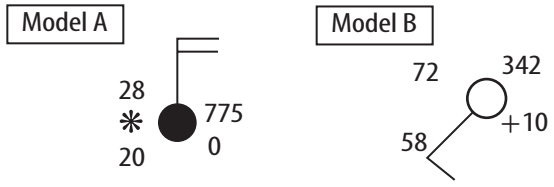
Inquiry **MiniLab** **LESSON 3: 20 minutes**

How is weather represented on a map?

Meteorologists often use station models to record what the weather conditions are for a particular location. A station model is a diagram containing symbols and numbers that displays many different weather measurements. Use the **station model legend** provided by your teacher to interpret the data in each station model shown here.



Analyze and Conclude

1. **Compare** and **contrast** the weather conditions at each station model.

2. **Explain** why meteorologists might use station models instead of reporting weather information another way.

3. **Key Concept** Discuss what variables are used to describe weather.