

Name _____

Date _____

How Weather is Observed and Measured



We can see what the weather is doing at any given time but how can we determine what the weather will do in the future? **Meteorologists** are scientists who study the weather. They work with special equipment that allows them to predict future weather conditions. The areas meteorologists study include:

- a) Moving air (wind);
- b) Heat in the air (temperature);
- c) Water vapor in the air that then falls back to earth (precipitation); and
- d) Air pressure and the amount of water vapor in the air (humidity).

Climatologists are scientists who study patterns in the weather over a long period. They study the weather to find out the climate of a specific area.

There are many modern tools used to predict weather today. Most of these tools are used on the ground; others are attached to balloons, inside aircraft, on satellites or on ships or buoys that are floating in the sea. The placement of these tools allows meteorologists to collect greater amounts of information and accurate data to work with.

Weather is measured and predicted so accurate weather forecasts are available. Forecasts can be seen daily on television, heard on the radio and read about in newspapers and on the internet. To give an accurate forecast meteorologists make thousands of observations and gain information from their equipment.

Before the development of sophisticated tools for measuring weather, people used nature for signs that would answer their weather questions. Farmers in particular watched the sky and the behavior of animals to help them determine the approaching weather.



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Weather Multiple Choice Questions

1. Scientists who study the weather are _____.
 - a) Meteorologists
 - b) Climatologist
 - c) Chemist
 - d) None of the above

2. Scientists who study patterns in the weather over a long period are _____.
 - a) Meteorologists
 - b) Climatologist
 - c) Chemist
 - d) None of the above

3. The areas meteorologists study include
 - a) Moving air (wind)
 - b) Heat in the air (temperature)
 - c) Water vapor in the air
 - d) All of the above

4. Weather is measured and predicted so that accurate weather forecasts can be made. Is this statement True or False?
 - a) True
 - b) False



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Answers

1. a
2. b
3. d
4. a

Explanation of Answers

1. **Meteorologists** are scientists who study the weather.
2. **Climatologists** are scientists who study patterns in the weather over a longer period. They study the weather over a long period of time to find out the climate of a specific area.
3. The areas meteorologists study include:
 - a) moving air (wind);
 - b) heat in the air (temperature);
 - c) water vapor in the air that then falls back to earth (precipitation); and
 - d) air pressure and the amount of water vapor in the air (humidity).
4. True statement



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How Weather is Observed and Measured Writing Activity

1. What are the FOUR main areas that meteorologists work on?

2. What is the difference between meteorologists and climatologists?

3. Before the development of sophisticated tools for measuring weather. How did people measure weather?

