Name _____

How Do Weather Patterns Help Us Predict Weather?

Science Words

Say each word quietly to yourself. Then read the meaning.

air pressure [AIR PRESH•uhr] the weight of the atmosphere on Earth's surface

Pressure contains the word *press*. When you press something, you use force to put weight on it. *Air pressure* is the weight of air pressing on Earth.

wind [WIND] moving air

Wind and *water* are connected by their first letters and more:
Wind blows from cooler places (higher air pressure) to warmer places (lower air pressure). The air over water is usually cooler than the air over land. So, during a day at the beach, *wind* usually blows from the water toward the land.

air mass [AIR MAS] a large body of air with the same temperature and moisture properties throughout

Mass is the amount of matter in an object. Mass also means a body of matter—any kind of matter. The matter in an *air mass* is air.

front [FRUHNT] the boundary between two air masses

Think about your home. Your front door is a boundary. The inside of your home is on one side of the boundary. Everything else is on the other side. A weather *front* is also a boundary. Warm air may be on one side of the boundary. Cooler air may be on the other side.

weather map [WETH•er MAP] a map that uses symbols to show weather data

You know that a map uses symbols to communicate information. A *weather map* uses symbols to communicate information about the weather.

Name _____

Extra Support for Vocabulary and Concepts

How Do Weather Patterns Help Us Predict Weather?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Air pressure is the pressure, or weight, of air pressing on Earth's surface.
2. In cold air, air particles are close together, and the air pressure is high.
3. In warm air, air particles are not as close together, and the air pressure is lower.
4. Wind blows from areas of high pressure to areas of low pressure.
5. Wind carries air masses from one place to another, often from west to east.
6. A front is the boundary, or place, where two air masses meet.
7. Meteorologists collect weather data from satellites, radar, and tools such as barometers.
8. A weather report is based on patterns that meteorologists find in the data they collect.
9. A hurricane forms in a low-pressure area over warm ocean water.
10. The center, or eye, of a hurricane is calm, but winds around the eye are extremely strong.