





Name: _____ Date: _____

Weather Unit Review Study Guide

Part 1: Match each instrument with its definition. Use the following words: **barometer**, **thermometer**, **anemometer**, and **rain gauge**.

1. Rain Gauge The instrument that measures the amount of precipitation that has fallen.
2. barometer The instrument that measures the air pressure.
3. thermometer The instrument that measures the amount of heat energy or temperature of the air.
4. Anemometer The instrument that measures wind speed.

Part 2: Label each cloud picture below. Then match the definition to each cloud type. Use the following words: **stratus**, **cumulus**, **cumulo-nimbus**, and **cirrus**.

		Cloud Name	Definition	
5.		<u>Cumulus</u>	<u>d</u>	<input checked="" type="checkbox"/> a. feathery clouds that are high up in the sky and are associated with fair (good) weather
6.		<u>Cirrus</u>	<u>a</u>	<input checked="" type="checkbox"/> b. giant, black, fluffy clouds that bring thunderstorms or tornadoes
7.		<u>cumulo-nimbus</u>	<u>b</u>	<input checked="" type="checkbox"/> c. smooth, gray clouds that cover the whole sky and block out direct sunlight; they look like a blanket in the sky and are associated with light rain and drizzle
8.		<u>stratus</u>	<u>c</u>	<input checked="" type="checkbox"/> d. fluffy, white clouds with flat bottoms that like giant cotton balls; they are associated with fair weather

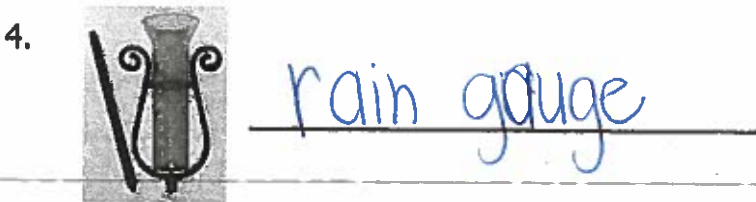
Part 3: Complete each statement with the correct word.

cold front	warm front	high air pressure	low air pressure	front		
thunderstorm	hurricane	tornado	rain	hail	snow	warm air
	cold air	troposphere	sleet			

1. cold air has greater air pressure than warm air because it has weight.
2. A cold front usually brings storms and colder weather.
3. A hurricane is a storm that forms in the tropics over oceans between June and November, covering up to 360 miles. It causes winds speeds up to 150 mph, heavy rains, and giant waves that crash onto the shore.
4. Rain forms when the cloud droplets come together and the air temperature and ground temperature are above freezing
5. Low air pressure usually means bad weather will occur.
6. A tornado is a storm that forms over land, occurring most commonly in the US, when cold air is forced over warm air. The warm air spirals upwards quickly. It causes high winds, heavy rains, and hail. The low pressure in the center can cause objects to explode.
7. A warm front usually brings slow, steady rain and then warmer weather.
8. Hail forms when cold air in the clouds turns droplets into ice crystals. As the crystals fall and pick up water vapor, they get caught in an updraft and refreeze. This happens over and over again until they are heavy enough to fall from the clouds
9. A thunderstorm is a storm that forms from a cumulo-nimbus cloud, when warm, moist air rises rapidly. It only lasts for a short time and produces heavy rain, thunder, lightning, strong winds, and sometimes hail
10. High air pressure usually means good weather.

11. sleet forms when the air temperature is below freezing which makes the rain drops freeze, but the ground temperature is above freezing, so it makes surfaces slick and wet
12. front is the boundary between air masses of different temperature and humidity.
13. troposphere the atmosphere where our weather occurs
14. Snow forms when the cloud droplets come together and the air temperature is below freezing; if the ground temperature is also below freezing, it will accumulate, but if its not, it will melt

Part 4: Use the word bank to identify the following instruments.



- | |
|-------------|
| rain gauge |
| barometer |
| anemometer |
| thermometer |

Part 5: Short Answer

1. When you read a barometer and the needle is falling, what will happen to the weather?

The weather will become stormy.

2. What could cause the temperature to drop from the morning to the afternoon?

An increase in air pressure can cause the temperature to drop.

3. What is it called when water particles leave the Earth's land and water surfaces, changing from a liquid to a gas? evaporation

4. What is it called when the cold air makes the water particles slow down, causing them to change from a gas to a liquid? Condensation

5. What is it called when the water droplets become so heavy that they fall back to Earth? precipitation

Part 6: Use the graph to answer questions 1-3.

1. At which time of day is it the warmest?

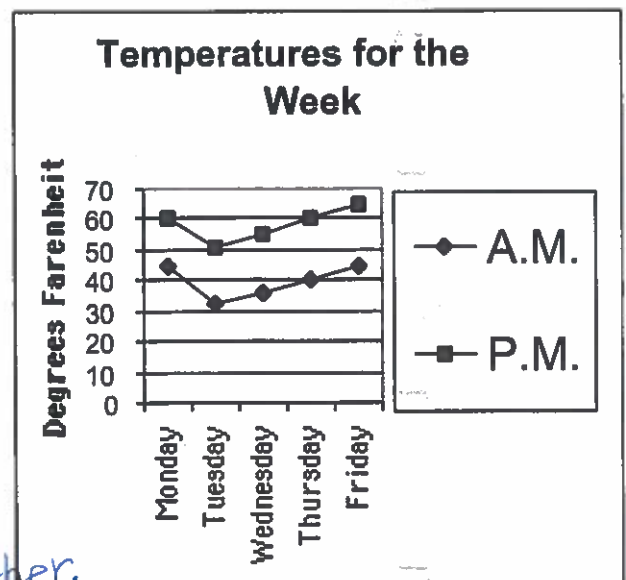
P.M. is the warmest time of day.

2. At which time of day is it the coolest?

A.M. is the coolest time of day.

3. How could this information be helpful to you?

This information can help us dress appropriately for the weather.



Part 7: Look at the weather map below and answer the following questions.

1. What type of front is moving towards Virginia? Cold front
2. What type of weather will that front bring? heavy precipitation & cooler temperatures
3. What type of front is moving towards the Kansas, in the central part of the country?
Warm front
4. What type of weather will that front bring? Warmer temperatures; light precipitation
5. What type of pressure system is over Florida? High air pressure
6. What type of weather will that mean for Florida? Fair, sunny weather
7. What type of pressure system is over New York? Low air pressure
8. What type of weather will that mean for New York? bad, stormy weather

