

Unit 4 Weather and Climate

Air mass and weather fronts quiz

Name_____ Date_____ Period_____

Part 1: Place the correct letter in the blank spot after the sentence.

A. Air Mass B. Cold Front C. Occluded D. Fronts

E. Warm Front F. Stationary Front

1. These fronts move quickly and can cause abrupt weather changes including violent thunderstorms. After this front passes through, dry air moves in. _____
2. Where air masses meet but do not mix due to different temperatures and densities. _____
3. A large body of air with similar temperature, humidity, and air pressure. _____
4. A front that stops moving or is moving very slowly. _____
5. Moving warm air mass collides with a slowly moving cold air mass. _____
6. When a warm front is trapped by 2 cold fronts. _____

Part 2. Name the four types of Air Masses.

7. _____
8. _____
9. _____
10. _____

Part 3. Density Differences: True or False

- 11 . True or False: Warm Air is considered High Pressure? _____
12. True or False: Cold air is more condensed and heavier than warm air? _____
13. True or False: Warm air chases _____

Part 4. Sea Breeze and Land Breeze

Answer the following questions based on the ocean located to the right and the land to the left.

14. What causes land and sea breeze?

- a. The waves from the ocean.
- b. Large air masses that come off of the ocean.
- c. Unequal heating and cooling between the ocean and the land.
- d. Because Land heats up slower than the ocean.

15. In what direction would wind flow during the night if the ocean was to the right?

- a. From right to left.
- b. left to right.
- c. From low pressure to high pressure.
- d. From low density to high density.

Part 5: Convection, Radiation and Conduction

16. Which is an example of Radiation?

- a. When a person puts gloves on to warm their hands.
- b. When you walk on a beach with hot sand.
- c. When you place your hand 10 inches away from a hot lamp.
- d. When you place a spoon inside of a pot on a stove and spoon heats up.

17. Which is an example of conduction?

- a. When you place a piece of wire over a candle at one end and the other end gets hot.
- b. When the sun shines on the beach.
- c. When the air becomes humid.
- d. When hot magma rises to the top of Earth's surface, cools, and falls back down.

18. Which is an example of convection?

- a. A heater that warms up a house.
- b. A spoon that heats up in hot water from one end to the other.
- c. When magma flows down to create a mountain.
- d. When rain is produced from a cloud.

Part 6: Meteorology

19. What is the difference between climate and weather?

- a. climate happens in the tropics only and weather in the poles.
- b. Weather produces severe weather and places of climate do not.
- c. Climate is term used during the prehistoric era, and different weather began as the continents moved a part.
- d. Climate is a consistent atmosphere condition that takes place over a long period of time, and weather changes daily.

20. What symbol represents a warm front?

- a. A curved line with half blue circles on it.
- b. A curved line with red triangles on it.
- C. A curved line with half red circles on it.
- d. A curved line with blue triangles on it.

21. Written Response: Name the type of weather that results from an stationary front. Explain why. Please respond with five or more sentences.