

Name:

Date:

Block:

Air Masses and Fronts

Types of Air Masses

What types of air masses fill in the blanks?

MATCHING GAME

Turn and talk with your partner. Which description do you think describes each type of air mass? Why?

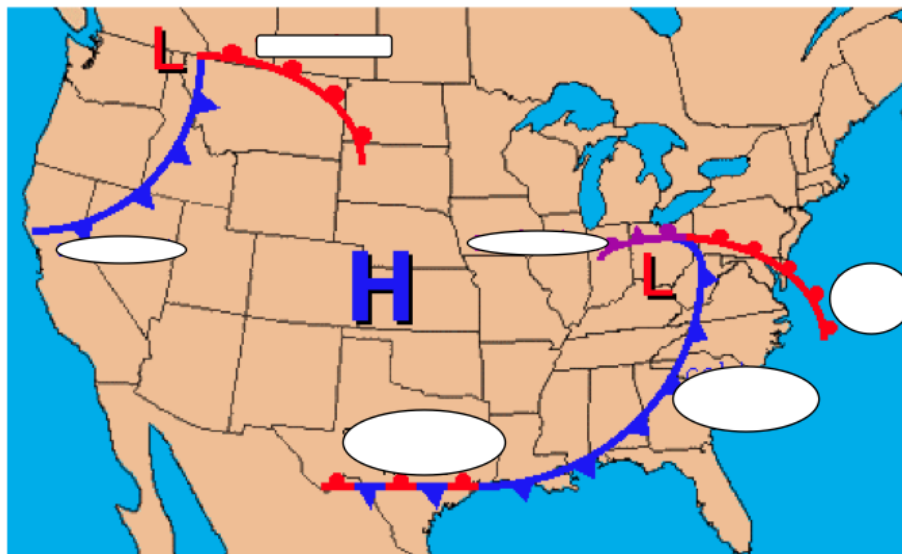
- | | |
|--------------------|--------------|
| 1. continental (c) | A. warm air |
| 2. polar (P) | B. cool air |
| 3. maritime (m) | C. humid air |
| 4. tropical (T) | D. dry air |

- A air mass forms over the ocean and has humid air.
- A air mass forms over land and has dry air.
- A air mass forms in the tropics and has warm air.
- A air mass forms toward the poles and has cold air.

What kinds of air masses are shown here?



What does this weather map show?



	Symbol	Associated Weather
Cold Front		
Warm Front		
Occluded Front		
Stationary Front		
Cyclone		
Anticyclone		

The map below shows the location of South Carolina.



- A. runoff from inland mountains
- B. flooding from rivers and streams
- C. groundwater bubbling to the surface
- D. evaporation from the surface of the ocean

South Carolina is humid during the summer months. Which of the following is the **most likely** cause of the humid conditions?

The paths of two air masses, X and Y, are shown in the diagram below.



Air mass X is a cold air mass. Air mass Y is a warm air mass. When the air masses meet, winter storms may be produced.

Which of the following **most likely** contributes to the formation of these storms?

- A. Cold air mass X moves over warm air mass Y, and evaporation occurs.
- B. Warm air mass Y moves over cold air mass X, and condensation occurs.
- C. Cold air mass X mixes with warm air mass Y, and the overall temperature increases.
- D. Warm air mass Y mixes with cold air mass X, and the overall temperature decreases.

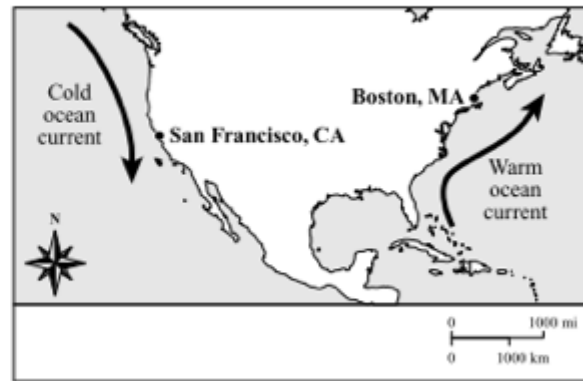
The map below shows the Grand Banks area off the coast of Newfoundland, Canada.



The Grand Banks area has over 200 foggy days a year. Which of the following conditions produce the fog in the Grand Banks area?

- A. dry air and fast ocean currents
- B. cold air masses and high clouds
- C. moist air and cold temperatures near the ocean surface
- D. high air temperatures and high air pressure near the coast

The map below shows the locations of San Francisco, California, and Boston, Massachusetts, and the direction of the ocean current off each coast.



Based on the map, how do ocean currents **most likely** affect the climates of San Francisco and Boston?

- A. More precipitation falls in San Francisco than in Boston.
- B. Average wind speeds are greater in San Francisco than in Boston.
- C. Average summer temperatures are lower in San Francisco than in Boston.
- D. Storms move from east to west in San Francisco and from west to east in Boston.

The map below shows the locations of two cities. City Y is near the coast, and city Z is near the middle of a continent. The cities have the same elevation.



Based on the map, which of the following statements describes how the climates of the two cities are **most likely** different?

- A. City Y receives less rain than city Z.
- B. City Y has colder winters than city Z.
- C. City Y has cooler summers than city Z.
- D. City Y receives more sunlight than city Z.