Name_____

Chapter 13 Weather Study Guide

Objectives:
- Describe the variables that are used to determine weather
- Identify the relationship between weather and the water cycle

Condensation	Evaporation	Precipitation	Water Cycle	Weather

1-5. Using the words from the box below write the vocabulary word that best fits the definition.

1. When a **solid or liquid falls** from the atmosphere onto Earth's surface, it is a form of _____.

2. The process of water vapor (a gas) **cooling** and changes into **liquid droplets** is called _____.

3. The condition of the atmosphere at a **particular time and place** is called _____.

4. The series of natural processes by which water **continually** moves among oceans, land and the the atmosphere is called the _____.

5._____ is when water **heats up** and changes from **liquid to gas** (water vapor).

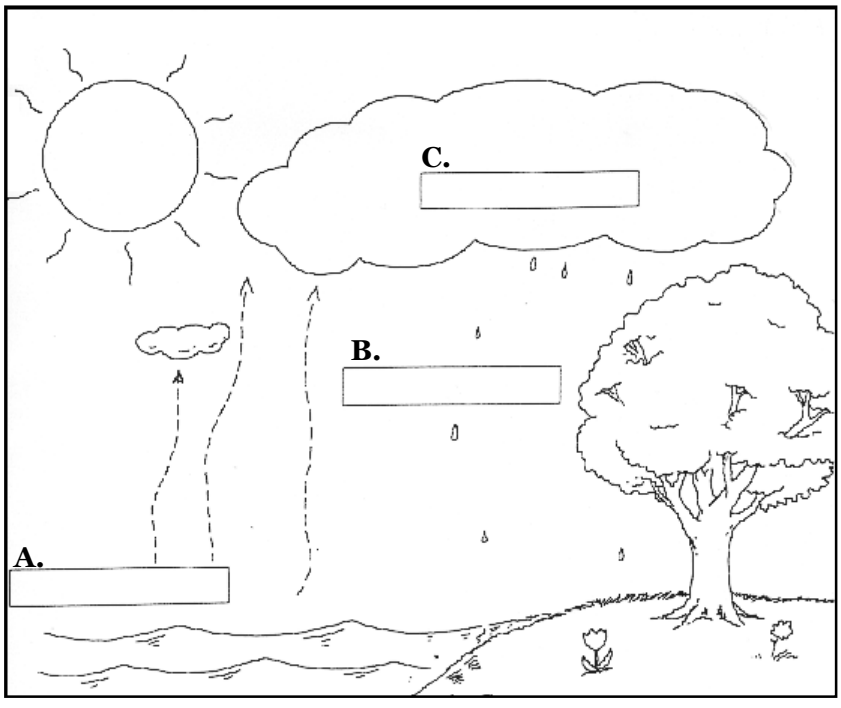
6. Name four types of **precipitation**.

A._____ B._____ C._____ D._____

7. Which step of the **water cycle** creates clouds? _____

8. Clouds form under what **type of air pressure**? _____

9. Label the **three** major steps of the water cycle in the diagram to the right.



Name_____

Objectives:
- What are the two types of pressure systems?
- What are the driving forces of weather patterns?

1. Define Air Mass: _____

2. What two qualities are used to classify an air mass? _____ & _____

Continental Polar	Continental Tropical	Maritime Polar	Maritime Tropical

3. Label the air masses in diagram. Choose from the word blank below.

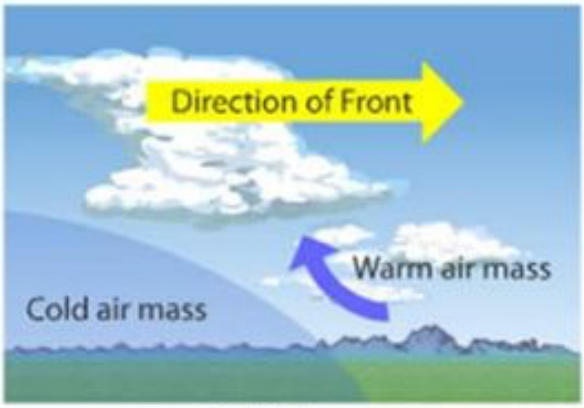
Name_____

4-7. Match the air mass to weather associated with it by writing the letter of the description that fits best.

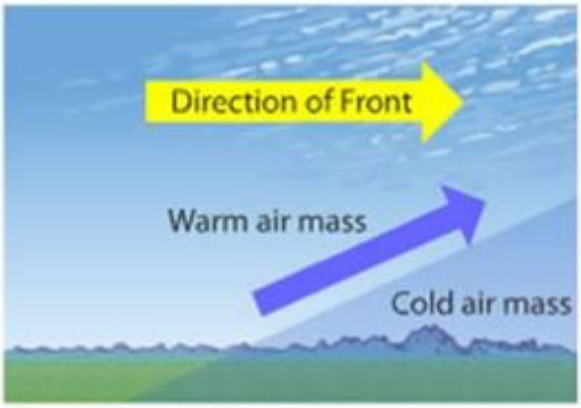
Air Mass	Description
4. Continental Polar_____ **5. Maritime Polar_____**	A. Forms over the Atlantic, Gulf of Mexico, and Pacific. Contains Wet, hot air. Creates heavy precipitation. B. Forms over Central Canada, contains fast, dry, cold air.
6. Continental Tropical_____	C. Forms over the Northern Atlantic and Pacific Ocean, contains cold and wet air. Brings cloudy, rainy weather.
7. Maritime Tropical_____	D. Forms over deserts and creates dry warm air. Brings clear skies and high temperatures.

8. The boundary between two air masses is called a _____.

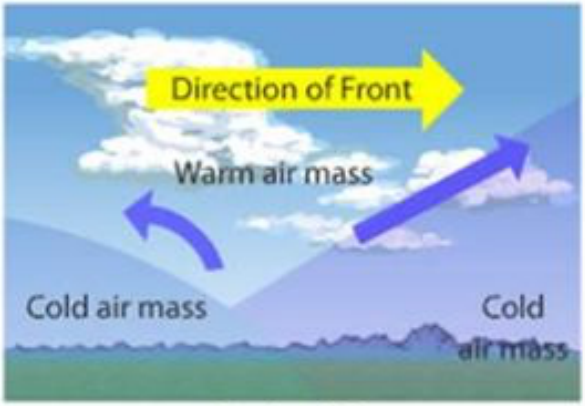
9-12. Label Each Front



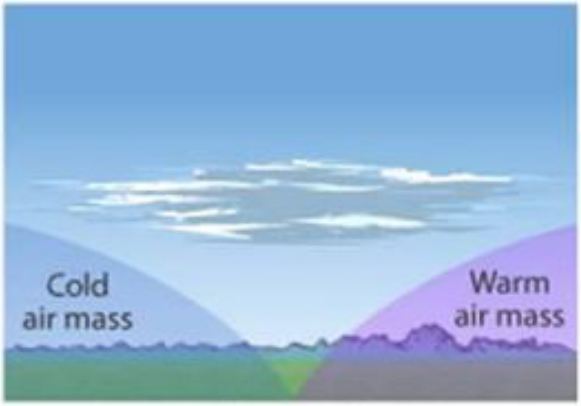
9. _____



10. _____



11. _____



12. _____

Name_____

13-14. The data table below shows the highest temperature recorded each day; Monday through Friday at two different locations. Determine which front is affecting each location.

	Location A	**Location B**
Day	**Air Temp (°F)**	**Air Temp (°F)**
Monday	68	52
Tuesday	68	52
Wednesday	58	70
Thursday	50	72
Friday	48	75

13. Location A is experiencing a_____ front.

14. Location B is experiencing a _____ front.

15-18. Draw the symbol for each weather front.

	Symbol
15. Cold Front	
16. Warm Front	
17. Stationary Front	
18. Occluded Front	

19. Which **type of pressure system** is associated with cloudy skies and precipitation?

_____.

Name_____

Objectives:
- What are examples of severe weather?
- How does severe weather form?

1. Define tornado:

_____

2. Define hurricane:

_____

3. Define blizzard:

_____

5. **Compare** tornadoes and hurricanes (how are they similar):

_____

_____

6. **Contrast** tornadoes and hurricanes (how are they different):

_____

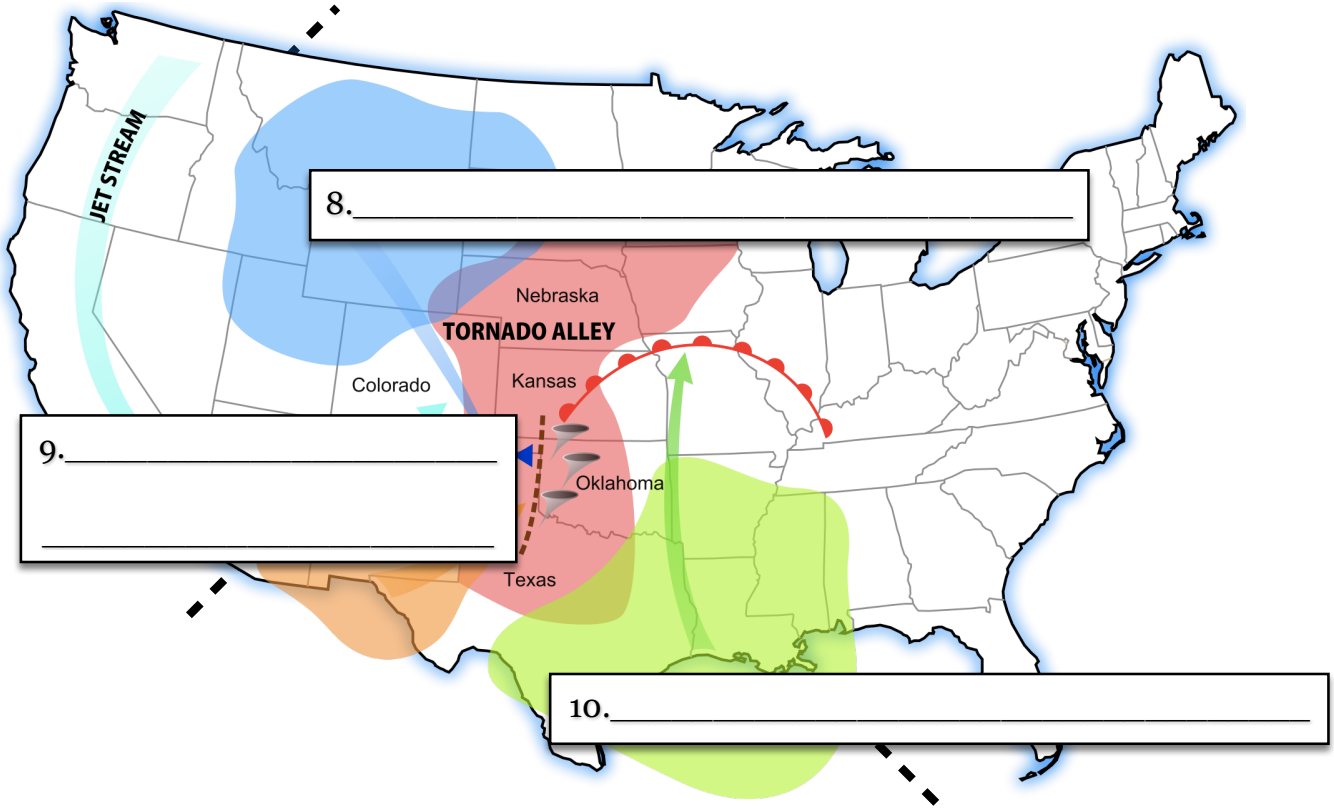
_____

7. Under what conditions do hurricanes dissipate or die off?_____

_____

Name_____

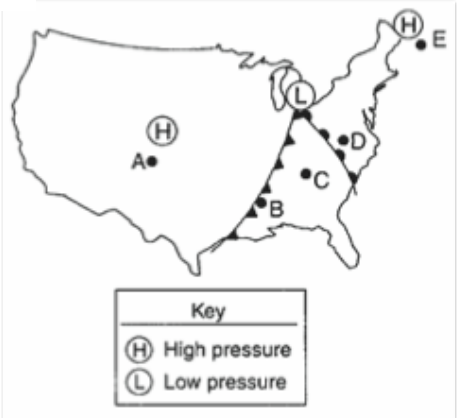
8-10. Identify the **three air masses** in the image below that combine to create tornadoes in Tornado Alley.



Objectives:

- How can weather be predicted?

1. The map below shows high pressure and low pressure weather systems in the United States.



Which two lettered positions on the map are most likely receiving precipitation?

a. *A* and *B*
b. *B* and *D*
c. *C* and *E*
d. *A* and *D*

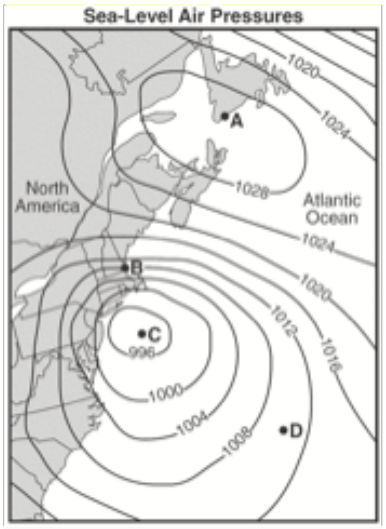
Name_____

2. Draw a warm front moving Northeast through Florida, Georgia, Tennessee, and Kentucky

3. Draw a cold front moving South through Montana, South Dakota, Iowa, and Illinois

4. Draw an occluded front with a warm air mass headed East through Ohio, Kentucky, and Tennessee

5 . Base your answer to the following question on the map below, which shows sea-level air pressure for a portion of the eastern coast of North America.



The air pressure recorded at point *D* was most likely

a. 1014 mb
b. 1012 mb
c. 1010 mb
d. 1006 mb