

Topic: Air masses and global winds (A)

Name \_\_\_\_\_

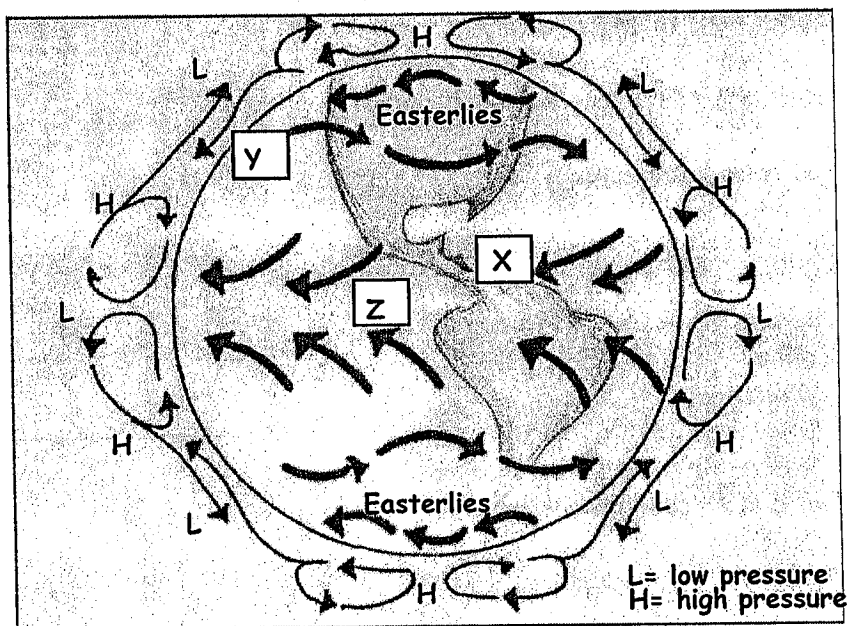
1. The leading edge of an advancing air mass is called a \_\_\_\_\_.

2. Name the air mass which is responsible for bringing cool, moist, and unstable conditions to British Columbia much of the year.

3. Winds blowing to the equator at location X are called \_\_\_\_\_

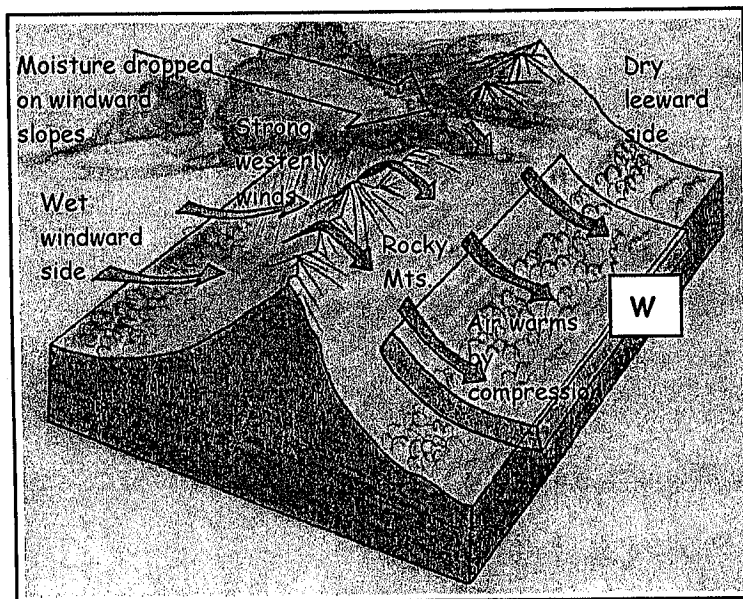
4. Winds blowing from the Pacific Ocean across the BC coast at location Y are called \_\_\_\_\_

5. Give the name of the equatorial region at Z in which winds are generally calm.



6. Name the wind at location W which brings cities such as Calgary, Alberta periodic warming in winter.

7. Surface winds blow from an area of \_\_\_\_\_ pressure to an area of \_\_\_\_\_ pressure.



# Unit 3: Weather and Climate Quiz

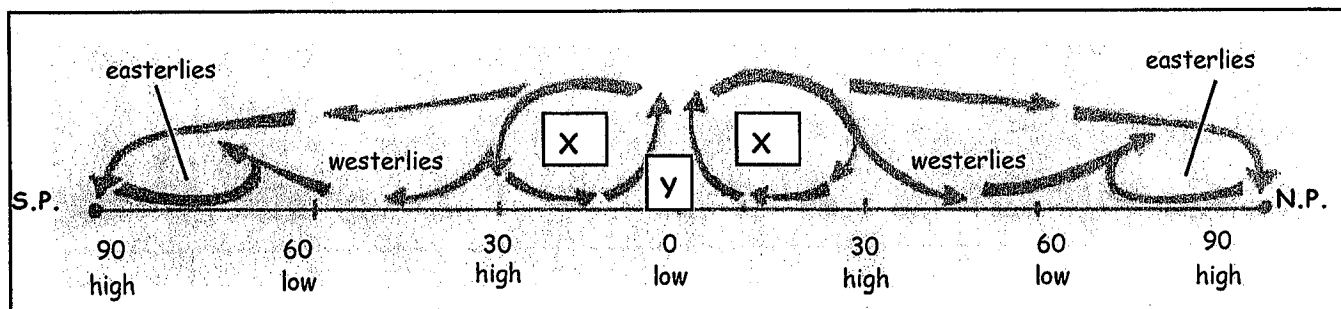
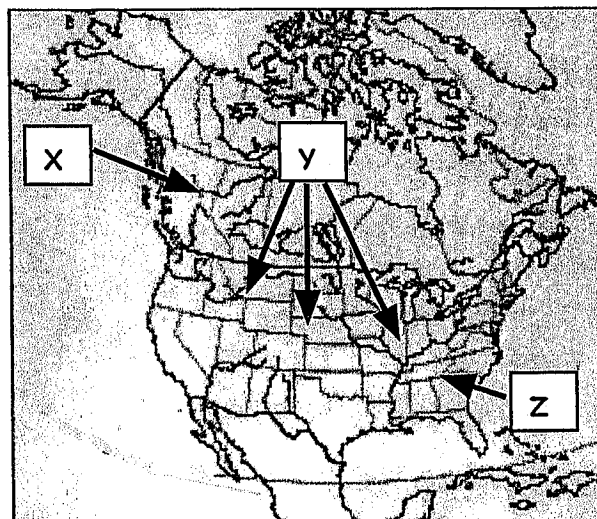
## Topic: Air masses and global winds (B)

Name \_\_\_\_\_

1. The air mass at X which greatly influences the weather along the west coast of BC is called \_\_\_\_\_.

2. Name the air mass at Y which originates in high latitudes. It is cold, stable, and dry as it flows south through the interior of North America. \_\_\_\_\_

3. What air mass influences the weather at location Z? \_\_\_\_\_

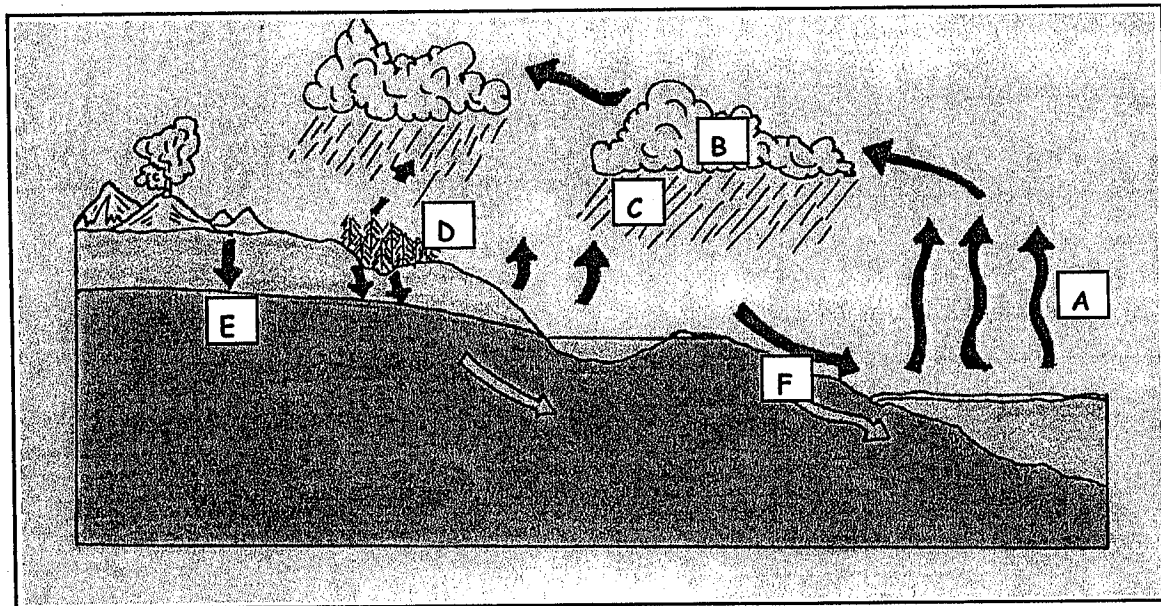


4. Name the winds blowing to the equator at location X on the above diagram. \_\_\_\_\_

5. Name the area at Y in which winds are calm throughout the year. \_\_\_\_\_

6. The leading edge of a moving air mass is known as a \_\_\_\_\_.

7. Define occluded front. \_\_\_\_\_



Refer to the diagram when answering question 1.

1. The following 6 steps of the water cycle are illustrated in the diagram above:  
Precipitation, infiltration, evaporation, transpiration, condensation, runoff.  
Place these terms in the proper blank below.

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_
- D. \_\_\_\_\_
- E. \_\_\_\_\_
- F. \_\_\_\_\_

2. Define transpiration.

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3. Define condensation.

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Topic: Atmosphere & Air masses

Name \_\_\_\_\_

1. Name the turbulent layer of the atmosphere that contains clouds, wind, precipitation.

\_\_\_\_\_

2. In general, as altitude increases, air temperature \_\_\_\_\_ and air pressure \_\_\_\_\_.  
However, above 90 kilometres, in the layer called the \_\_\_\_\_, air temperature \_\_\_\_\_.

\_\_\_\_\_

3. State the importance of the ozone layer.

\_\_\_\_\_  
\_\_\_\_\_

4. In which layer of the atmosphere is the ozone layer found? \_\_\_\_\_

5. The Earth's gaseous atmosphere is 78% \_\_\_\_\_ and 21% \_\_\_\_\_.

6. What does a 'greenhouse gas' do? Name 3 greenhouse gases.

\_\_\_\_\_  
\_\_\_\_\_

7. Define insolation. \_\_\_\_\_

8. How is the atmosphere heated?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. What are air masses? \_\_\_\_\_

An air mass that was formed over land is called \_\_\_\_\_. If it formed over water, it is called \_\_\_\_\_.

10. Why are stable air masses a problem in urban areas?

\_\_\_\_\_  
\_\_\_\_\_

11. What is a front? \_\_\_\_\_

12. Which is heavier, warm air or cold air? \_\_\_\_\_



Unit 3: Weather and Climate

13. In what latitude would you find continuous low pressure? \_\_\_\_\_

In what latitude would you find continuous high pressure? \_\_\_\_\_

14. In general, what type of weather is associated with low pressure? \_\_\_\_\_

What type of weather do we associate with high pressure? \_\_\_\_\_

15. Name the air mass that brings the Pacific West Coast its wet, winter weather.

\_\_\_\_\_

16. Why does the Continental Polar air mass from the north seldom move over the coastal regions of British Columbia but often advances as far south as Florida?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_