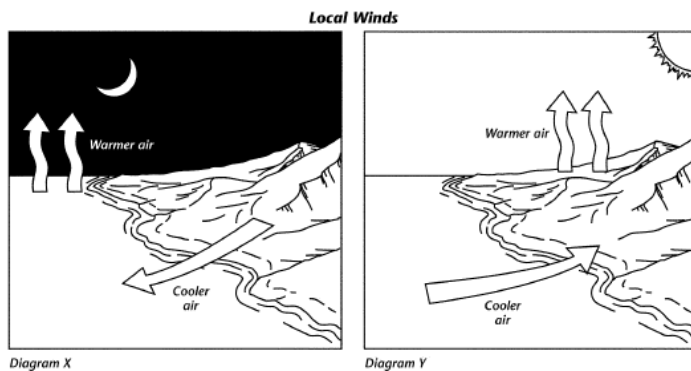


## The Atmosphere Study Guide

1. What percent of our atmosphere is made up of gases other than oxygen and nitrogen? \_\_\_\_\_
2. Water in the form of a gas is called \_\_\_\_\_.
3. What is the formula for calculating density? \_\_\_\_\_
4. The less mass in a given volume of air, the \_\_\_\_\_ dense the air.
5. What instrument is used to measure air pressure? \_\_\_\_\_
6. An \_\_\_\_\_ barometer measures air pressure by using a metal chamber that is sensitive to pressure changes.
7. The \_\_\_\_\_, or elevation, of a mountaintop is its distance above sea level.
8. As you rise upward in the atmosphere, what happens to the air pressure? \_\_\_\_\_
9. On a mountain, a person becomes out of breath quickly because fewer \_\_\_\_\_ molecules are present.
10. The layers of the atmosphere are classified according to changes in \_\_\_\_\_.
11. From the Earth to space, list the main layers of the atmosphere. \_\_\_\_\_
12. Which layer of the atmosphere does weather occur in? \_\_\_\_\_
13. Which layer of the atmosphere is the lowest and shallowest? \_\_\_\_\_
14. What is ozone? \_\_\_\_\_
15. What layer of the atmosphere is the ozone found in? \_\_\_\_\_
16. What does the ozone layer protect living things on Earth from? \_\_\_\_\_
17. What layer of the atmosphere is between the stratosphere and the thermosphere? \_\_\_\_\_
18. Which layer of the atmosphere protects Earth from being hit by most meteoroids? \_\_\_\_\_
19. Energy from the sun that reaches Earth is mostly in the form of visible light, infrared radiation, and \_\_\_\_\_.
20. What is the process by which gases hold heat in the atmosphere called? \_\_\_\_\_
21. What instrument is used to measure how hot or cold the air is? \_\_\_\_\_
22. How are local winds different from global winds? \_\_\_\_\_
23. Uneven heating of the atmosphere leads to differences in \_\_\_\_\_.
24. Cool air is \_\_\_\_\_ dense and flows \_\_\_\_\_ warm air.

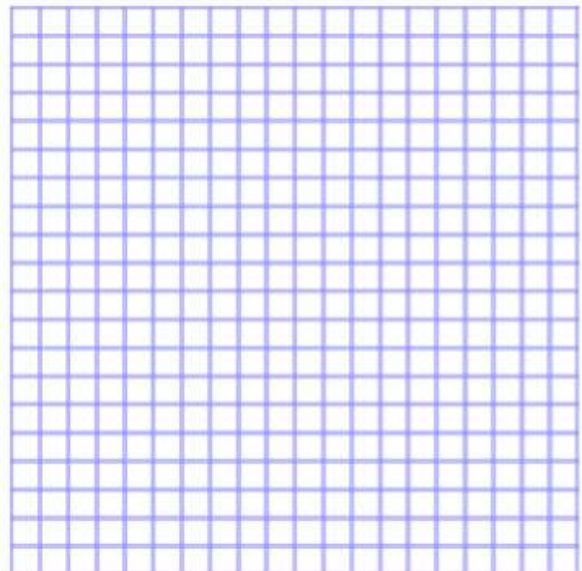
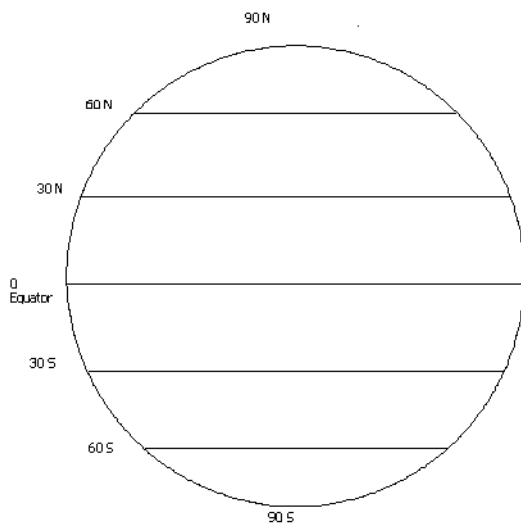
25. What determines the movement of global winds? \_\_\_\_\_
26. Earth's rotation makes global winds curve. This is called the \_\_\_\_\_
27. Which direction do the prevailing westerlies push air masses over the United States? \_\_\_\_\_



28. In diagram X, which way does the wind blow? \_\_\_\_\_
29. In diagram Y, which way does the wind blow? \_\_\_\_\_
30. Use the word bank to fill in the global winds on the map of the world. The words will be used more than once to completely fill out the map. (Do this on your answer sheet).

**Work Bank**

The Doldrums                      Trade Winds  
 The Horse Latitudes          Westerlies  
 Polar Easterlies



31. Use the information from the table to create a line graph showing how temperature changes with altitude. Altitude should be on the x-axis and temperature should be on the y-axis. Make sure you include a title and x and y-axis labels.

Altitude (km)	Temperature (°C)
0	10
20	-50
55	0
80	-75
100	-65