Weather Pattern Study Guide

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What causes wind? Solar energy or uneven heating of the Earth
2. When air is heated it will most likely expand and rise.
3. What instrument should be used to measure pressure changes? barometer
4. The reading on a barometer rises when the air pressure increases.
5. Why would a balloon increase in size as it goes higher in the atmosphere air pressure surrounding the balloon decreases.
6. Why is air at sea level denser than air at high altitudes? The air molecules are pushed closer together at sea level.
7. Atmospheric conditions at a particular time and place is called weather
8. Wind can either travel \_\_horizontal\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_vertical\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the ground.
9. Where would air pressure be the highest? \_at sea level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. What direction do winds curve in each hemisphere? Curve to the right in the northern hemisphere and to the left in the southern hemisphere
11. What causes the coriolis effect? Rotation of the Earth
12. What are narrow belts of strong winds found in the upper troposphere? Jet stream
13. Review your wind belt diagram and foldable that you colored in your notebook!!!!!!
14. The calm regions that lie at 30 degrees N and S are called the horse latitudes\_. They are areas of \_\_high\_\_\_\_\_\_\_\_\_\_ pressure.
15. What are the doldrums responsible for? Development of tropical storms
16. What are the two wind patterns that are mostly responsible for our weather in North America?

Jet stream and westerlies

1. What is the wind belt that is located at the poles and brings cold wind towards the equator? easterlies
2. What causes sea and land breezes? The uneven heating of between land and water
3. What is the relative humidity of saturated air? 100% relative humidity
4. The amount of water vapor in the air is called humidity.
5. What is dew point? The temperature at which air reaches saturation

22. What are cirrus clouds made of? Ice crystals

23. What type of weather would dark stratus clouds bring? storms

24. What happens when air pressure drops? storms

25. What phase change in the atmosphere forms clouds? condensation

26. Which two things interact most in the water cycle? \_\_sun\_\_\_\_\_\_ and \_\_\_\_\_\_\_oceans\_\_\_\_\_\_\_\_\_\_\_\_\_\_

27. Which type of cloud produces hail? \_\_cumulonimbus\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

28. How does fog form? Water vapor condenses into stratus clouds that are in contact with the ground

29. An Anemometer measures? Wind speed

30. Review your wind belt diagram and foldable that you colored in your notebook!!!!!!