3rd 9 weeks Study Guide

parent signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Matter is anything that has mass and \_\_\_\_\_\_\_\_\_\_.
2. Describe the movement of air in coastal areas.

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1. The trade winds are tropical winds that blow toward the equator. Why do trade winds blow towards the equator?

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1. As the sun heats the sea, the sea absorbs heat \_\_\_\_\_\_\_\_\_\_\_ than the land. This causes the air pressure above the sea to be \_\_\_\_\_\_\_\_\_\_\_\_\_ than the pressure above the land.
2. The movement of energy through empty space is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. What occurs because of unequal heating of the Earth’s surface?
4. If you took a walk in the middle of the afternoon at the beach, what would you expect to be true in regards to heating and wind? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Which large global wind pattern directly affects the weather in the state of Georgia? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Where are doldrums found and what do they mean? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. How does the warming of the ocean water throughout the day cause a land breeze at night? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. What two forms of heat transfer most contribute to the creation of land breeze?

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

1. Airplanes typically fly in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ layer.
2. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ effect causes the wind to travel clockwise around high pressure systems in the northern hemisphere and counter-clockwise in the southern hemisphere?
3. In the United States, air pressure is measured in \_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. The region of the atmosphere closest to Earth is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Based on the chart below, when would we expect to have a land breeze? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **Time** | **Sea Temperature (°F)** | **Land Temperature (°F)** |
| A | 81 | 83 |
| B | 78 | 78 |
| C | 82 | 81 |

1. What causes wind? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. The region of the atmosphere that reflects radio signals is the \_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Earth’s air is mostly heated by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Warm air expands and rises, creating an area of \_\_\_\_\_\_\_\_\_\_\_\_\_; cold air is dense and sinks to create an area of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. A wind that blows from the southwest is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. A village in Bangladesh deals with a prolonged 4 month rainy season followed by a comparable dry season. This makes difficult to farm due to flooding and drought. The type of local wind that creates this is called a \_\_\_\_\_\_\_\_\_\_\_\_\_.
7. Weather is best described as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. The main gas in the atmosphere (78%) is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
9. In what layer of the atmosphere does all weather occur? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. A mountain breeze is defined as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. Draw a picture of a land breeze and a sea breeze. Be sure to include the sun and moon to indicate time of day.

land breeze sea breeze

1. If air is filled to 3/4 of its capacity, the relative humidity is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. The Aurora Borealis happens in the layer of the atmosphere called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Fog forms over rivers and lakes when cool air moves in over
4. The actual, measured amount of water in the air is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Most of the water in the air evaporates from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. Weather scientists are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. The weather instrument used to measure wind speed is called an\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. The weather instrument used to measure relative humidity is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
9. Clouds are formed by the process of \_\_\_\_\_\_\_\_\_\_\_\_\_.
10. Plants add water vapor to the air through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
11. Air with a relative humidity of 100% is
12. A cloud that forms near the ground is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
13. The amount of water vapor in the air is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
14. When does air have more capacity to hold water? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
15. The temperature at which air must be cooled to reach saturation is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
16. Air pressure is measured with an instrument called \_\_\_\_\_\_\_\_\_\_\_\_.
17. Water vapor is water in the form of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
18. The part of the plant that holds water waste is called its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
19. Heat moves through solids by \_\_\_\_\_\_\_\_\_\_.
20. An altimeter measures \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
21. Regions of cold, heavy are called \_\_\_\_\_\_\_\_\_.
22. Beyond the atmosphere is a region known as the \_\_\_\_\_\_\_\_\_.
23. The ozone layer of the stratosphere protects the Earth from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ light from the sun.