Patterns of Circulation in the Atmosphere Study Guide

| 1- What causes wind? | Wind is caused by air pressure. |
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| 2- What happens to the air pressure as warm air rises? | When warm air rises the air pressure decreases. |
| 3- What happens to the air pressure as cold air sinks? | When cold air sinks, the air pressure increases. |
| 4- What is a sea breeze? How is a sea breeze created? | A sea breeze is a local wind that blows from an ocean or lake. A sea breeze is formed when cool air blows inland from over the water and moves underneath the warm air causing a sea breeze. |
| 5- What is a land breeze? How is a land breeze created? | The land cools down and the cold or cool air goes back to the sea or lake. |
| 6- Explain Figure 3. | Sea breeze. The warm air rises. The cool air moves to take cold air’s place. Land breeze. The warm air rises. At night, the cool air moves off land. |
| 7- What is the coriolis effect? | The coriolis effect is the result of Earth’s rotation. |
| 8- How does the coriolis effect impact the northern and southern hemisphere? | The coriolis effect impacts the northern and southern hemisphere because the wind curves which makes the wind impact the northern and southern hemisphere. |
| 9- What are jet streams? | Jet streams are bands of high speed winds. |
| 10- How do jet streams impact the weather? | Jet streams impact the weather by generally blowing wind from west to east at speeds of 200 to 400 kilometers per hour. |
| 11- What happens if a jet stream wanders farther south? | If a jet stream wanders farther south it means colder temperatures and snowy conditions for areas north of the jet stream. |
| 12- What happens if a jet stream wanders farther north? | If a jet stream wanders farther north it means warmer air moves up from the south and warmer temperatures are predicted for areas south of the jet stream. |
| 13- Explain Figure 7. | In figure 7 it shows a polar stream and talks about the changing positions of the jet streams that influence local winter. Basically it shows where the position of the jet stream is every day and if it is colder or warmer than usual. |