Weather Storms, Instruments and Ocean Currents Study Guide

1. Explain how thunderstorms form *Humid air rises rapidly and forms cumulonimbus clouds*
2. What conditions produce a thunderstorm? *Cold fronts and Convection*
3. How do tornadoes form? *When warm, humid air masses from the Gulf of Mexico meet cold, dense air masses in the central plains of the United States*
4. What is a tornado?

*A violently rotating column of air stretching from a cloud to the ground. It moves along the ground in a winding path underneath the cloud.*

1. Which country has the most occurrences of Tornadoes? *North America (USA)*
2. What makes a tornado become visible? *When water droplets appear below the cloud in the center of the rotating column.*
3. What weather conditions would occur during the formation of a tornado? *Thunderstorms*
4. What the 4 effects of a thunderstorm?
   1. *Flash Floods*
   2. *Lightning*
   3. *Winds*
   4. *Hail*
   5. *Tornado*
5. Explain the difference between a Weather Watch and Weather Warning? *Watch- Weather conditions COULD produce a tornado. Warning- A tornado has been sighted in the area*
6. What is the cause of lightning? *Discharge between rain clouds and Earth*
7. What factors are responsible of flash floods? *How much rain is falling and how long the rain lasts.*
8. Where do tornadoes and hurricanes form? *Tornadoes form over land, which hurricanes form over bodies of water.*
9. Where does the Gulf Stream start and what body of water does it travel to? *It starts in the Gulf of Mexico and travels to the North Atlantic Ocean (near Gr. Britain).*
10. How does the Gulf Stream affect weather during the spring? *It causes weather to be rainy during the spring.*
11. What invention has helped meteorologists the most with predicting weather? *Satellites*
12. What are weather balloons used for? *Measures air at different altitudes into the Stratosphere*
13. What are 3 uses for Satellites?
    1. *Shows images of cloud cover*
    2. *Shows warm and cold regions*
    3. *Shows invisible water vapor*
14. What type of clouds are produced by a thunderstorm and tornado? *cumulonimbus*