# Weather and Climate interactive Chapter 3

Directions: Follow the interactive and answer the following questions. Some sections will ask you to print something. Staple printed material to this paper before turning in. The website can be found at http://missmorrisgeography.weebly.com under assignments tab listed under chapter 3.

## **Introduction**

1) Weather is a very important geographical element of our planet and effect our lives in many different ways. For example, about four inches of snow will cause us to be off school. After reading the introduction explain some of the ways weather can affect our lives.

## The Atmosphere

2) What are the different layers of the earth's atmosphere? Create a diagram below that illustrates each one and the role it plays. The diagram must be neat, clear, labeled and explained.

 After reading the page about the atmosphere analyze what allows earth to keep a moderate temperature. What negative role do scientists predict CO2 could play in keeping a moderate weather balance.

### The Water Cycle

- 4) An estimated 97% of our water is located where? How does this body of water help regulate earth's temperature?
- 5) After reading about the water cycle and using internet resources (Google search) to help you draw a detailed label depiction of the hydrologic cycle.

#### El Nino: Warming up the Waters

- 6) Describe what El Nino is.
- 7) Explain how winds and ocean currents change the weather during El Nino.

8) Describe what La Nina is and how it is different than El Nino.

#### **Powerful storms**

- 9) Explain how thunderstorms are created. How do Thunderstorms sometimes form tornados?
- 10) How do Hurricanes loose power?
- 11) Click on the picture in the article with the weathervane to practice predicting tornadoes. See if you can predict the weather as well as a meteorologist.

## Ice and Snow

12) Below create a recipe for the creation of ice and snow using the information on the page. You need to have the ingredients, the procedure to make it and a description of the three final results you could have: fluffy snow, sleet and glaciers.

13) Explain how the "Wobbling top" Theory by Milankovitch contradicts that the Global Warming Theory.

## Forecasting

14) Read the article about Forecasting click on the picture in the article with the weathervane to practice calculating wind speeds. Write three of your calculations below and what the results ended up being.

15) At the end of the page forecasting click on "A Meteorologist's tool kit" read this page and summarize the importance of two tools a meteorologist uses below.