**Review Guide – Climate and Severe Weather Test**.

**1.Vocabulary- Matching be able to match the vocabulary word with its definition.**

Climate - the weather conditions prevailing in an area in general or over a long period

Climate Change- a change in global or regional climate patterns attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

Climate Zones - are divisions of the Earth's climates into zones according to average temperatures and average rainfall.

Greenhouse Effect- is the process by which radiation, from a planet's atmosphere, warms the planet's surface to a temperature above what it would be without its atmosphere.

Greenhouse Gasses- a gas that contributes to the greenhouse effect by absorbing infrared radiation - carbon dioxide, chlorofluorocarbons, water vapor, methane, nitrous oxide.

Warnings- is an alert issued by national weather forecasting agencies to warn the public that severe thunderstorms with severe weather (i.e. tornados, hurricanes) are imminent or occurring.

Watches- is issued when weather conditions are favorable for the development of severe thunderstorms called a supercell that are capable of producing tornadoes, hurricanes, strong winds, .

Storm Surge- a rising of the sea as a result of atmospheric pressure changes and wind associated with a storm.

Eye – a calm and cloudless circular region in the center of the cyclone.

**II. Climate- Short Answer and Multiple Choice Questions.**

1. The three major climate zones on the Earth are the polar, temperate, and tropical zones. Locate the 3 zones

2. On average, which severe weather phenomenon is responsible for the most deaths in the United States per year?

3. In what layer of the Earth’s atmosphere does most of the weather of planet Earth occur?

4. What are the characteristics of the desert climate zone?

5. What are the characteristics of humid continental climate zone?

6. What are the characteristics of polar climate zone?

7. Earth’s temperatures are stable because are surrounded by – an atmosphere- which allows the right amount of sunlight in to warm the Earth.

8. The solar energy that warms the Earth includes visible light, infrared and – ultraviolet radiation- coming from the sun.

9. How are humans making greenhouse gasses of our own?

10. Too many greenhouse gasses in the atmosphere may block heat from escaping into space and trap too much heat next to the Earth’s surface causing?

11. We can visually see the effects of global warming in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**III. Severe Weather – Short Answer and Multiple Choice Questions.**

1. A tropical cyclone in the Atlantic and Easter Pacific is referred to as a – hurricane

2. A tropical cyclone in the western Pacific and Philippines is referred to as a – typhoon

3. What are the stages of a hurricane?

A. Tropical Cyclones (hurricanes) typically begin as a complex thunderstorm. Then they evolve through a series of stages. The first stage is the formation of a week – tropical depression.

B. If the wind speeds in the tropical depression reach 63 km/hr (39mph), then it is classified as a – tropical storm.

C. If the wind speed reaches 117 km/hr (73mph), then depending upon its location it is classified as a – hurricane

4. The strongest part of the hurricane is the - eye wall (just outside of the Eye).

5. A Category 1 hurricane has sustained wind speeds of  - 74-95 mph

B. Category 2 hurricane has sustained wind speeds of – 96-110 mph

C. Category 3 hurricane has sustained wind speeds of – 111-130 mph

D. Category 4 hurricane has sustained wind speeds of – 131- 155 mph

E. Category 5 hurricane has sustained wind speeds of 155+ mph.

6. Hurricane Katrina was a – category 5 Hurricane – and caused such destruction because?

7. Which aspect of land- falling hurricanes is usually responsible for the most destruction? – storm surges

Constructed Response: The answers to these questions need to be in complete sentences. The question needs to answered completely (will probably take at least 3 sentences).

1. Why is there concern about the amount of ozone in the stratosphere? Briefly discuss how human activity has influenced the amount of ozone in the stratosphere. Propose at least one suggestion to reduce the amount of greenhouse gasses.

2. Although the number of deaths in the United States caused by hurricanes as decreased in recent decades, the dollar cost of damage has increased significantly. Explain the reasons for these opposing trends.

3. When we calculated your carbon footprint what did you find was your greatest use of carbon emissions? What could you do to reduce your carbon footprint?