Name _____ Period _____ Date _____

Environmental Science – *Energy Pyramid* – Chapter 5.1

Directions: Fill in the information from the Classroom Chart or the online chart.

Environmental Science Standard and element:

SEV3. Students will describe stability and change in ecosystems.

b.) Explain succession in terms of changes in communities through time to include changes in biomass, diversity, and complexity.

1.) Put chart in Science Notebook behind the Chapter 5 Word Study after it has been checked. ____yes ____no

2.) *4 trophic levels* were accurate and complete. ____yes ____no

3.) *Plants and animals* were accurate and complete. ____yes ____no

4.) Description was accurate and complete with no abbreviation. ____yes ____no

(Part of Notebook Grade)

Trophic Levels: Each step in the transfer of energy through a food chain or food web is known as a trophic level. A trophic level is one of the steps in a food chain or food pyramid; examples include producers and primary, secondary, and tertiary consumers. Each time energy is transferred, some of the energy is lost as heat. Therefore, less energy is available to organisms at higher trophic levels. One way to visualize this is with an energy pyramid. Each layer of the pyramid represents one trophic level. Producers form the base of the energy pyramid, and therefore contain the most energy. The pyramid becomes smaller toward the top, where less energy is available.

Energy Loss Affects Ecosystems: As energy goes up the pyramid, each level absorbs a fraction of the energy that the previous level consumed. About ten percent of the energy is used at each level. About 90% of the rest is lost as waste often in the form of heat.

ENERGY PYRAMID showing Trophic Levels