**Environmental Geology Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Assignment 1 – Core Concepts**

This assignment includes case studies and basic information about carrying capacity, population and sustainability, which are the main underlying core concepts in environmental studies.

**Part A**

Use the information at the webpage below to fill in the blanks. Indicate the date you complete the assignment. <http://www.worldometers.info/>

Total World Population \_\_\_\_\_\_\_\_\_\_\_ World Population Growth This Year\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ birth-death/total pop.

Births This Year \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Deaths This Year \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rate of World Population Increase This Year \_\_\_\_\_\_\_\_\_\_\_ (you need to calculate based on info above).

Population in 1987, 1999 and 2012 \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. <http://www.census.gov/population/international/data/worldpop/table_population.php>

Define Sustainability

Sustainability is making sure that you are allowing not only your standard of living to not go down, but the standard of living for the future also. This means we can’t go out and eat meat every day for every meal because meat is good. This will eventually kill off all of the animals and we will no longer have the ability to do so. Rather we need to find a sweet spot in the middle where we can enjoy meat while still preserving it for our future generations.

Define Carrying Capacity

Carrying Capacity is the max amount of people that the world can sustain at one time. Eventually we will run out of resources for people on the world.

**Part B**

Malthus was a very intelligent man and in turn provided some very inspired data about the laws concerning population. Starting off he makes a very good point, he asks would you be ok bringing people into this world that you can’t care for? He continues to state that the law of nature will not allow for the population to go too high. After thinking about this for a second, it made sense to me. Once we run out of resources, we will lose the ability to create new life. He states that an unchecked population will double every 25 years, and that the ultimate population check us the want of food. He makes a good point about labor and how it relates to population. He said that when the population grows bigger, the labor force increases. In turn the cost of labor goes down meaning the average worker needs to work harder to make the same amount of money.

**Part C**

Tikopia and Easter Island are two isolated islands. Tikopia is smaller than Easter Island and as a result cannot support as many people. Long ago, Easter Island was inhabited by tribes of people. As these people began to build their colonies, they didnt realize what they were doing for the future population. Rather than being conservative with the resources available, they lived very luxurious lives. It was so bad to the point that they wasted all of the wood on the island to transport these massive stone statues in order to try to become the leader. Eventually they ran out of wood and were not able to make boats to fish, and eventually died.

Meanwhile on Tikopia, although the size of the land was smaller, this allowed for a more peaceful group of people. Rather than trying to figure out who was more dominant like the people on Easter Island, the people of Tikopia made peaceful decisions and were conservative with their resources. This allowed for them and their prosperity to live on for many generations to come.