**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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

Define Carrying Capacity

**Part B**

Thomas Malthus is widely known for his ideas about changes in population. His work indicates sooner or later population growth will be checked by disease and famine leading to a catastrophe. He argued against the main stream 18th-century religious (“multiply and replenish the earth”) and cultural views that was no limit to population growth. He thought the dangers of population growth and the need for resources would eventually cancel progress towards a better society.

At the webpage below, please skim over sections 1.I.1 to I.II.24 (left side of page under sections I.1 and I.2) and provide a ½ page summary. If interested, other chapters are also very informative. It is also amazing to see the amount of information Malthus collected without the Internet or a modern library. <http://www.econlib.org/library/Malthus/malPlong.html>

**Part C**

Many population and sustainability studies have been based on the history of events on islands. Before modern ships, airplanes and other forms of travel were available, islands represented a population and sustainability experiment with a small set of resources and original habitation by a small human population. As time when by on the island, the relationships between population, resource use and sustainability became apparent. Please note that you can also view Earth as an island in space. Our earth contains all our available resources.

In this section you learn about the success of the people of Tikopia and tragedy at Easter Island.

**Provide a one page summary of the information at the webpages below**:

<http://www.progresstrap.org/content/tikopia>

<http://ecology2011tamara2011sp.wordpress.com/2011/02/22/easter-island-vs-tikopia/>