Chapter 7 -Human Population

**Key Ideas**

* The human population is growing exponentially
* In 1798, Thomas Malthus said the human population was growing exponentially, while the food supply was growing linearly
* Fertility rates, life expectancy, and migration rates all drive population growth
* The 4 phases of the demographic transition are phase 1 with slow population growth, phase 2 with rapid population growth, phase 3 with stable population growth and phase 4 with declining population growth.
* Some factors that can help to slow down population growth are education and affluence among females, family planning, and working women.
* Population size is a critical factor in the impact humans have on Earth
* There are 6.8 billion people on Earth
* Industrialized countries have a much greater resource use than non-industrialized countries.
* Countries with greater affluence, or wealth, have a much larger environmental income than poorer countries.
* According to the Millennium Ecosystem Assessment, ecosystems will be threatened if the human population continues to grow, human well-being has improved for some people and declined for others, and if we establish sustainable practices, we may improve the standard of living for more people.

**Vocabulary**

Demography

Demographers

 Immigration

Emigration

Crude birth rate

Crude death rate

Doubling time

Total fertility rate

Replacement – level fertility

Developed countries

Developing countries

Life expectancy

Infant mortality rate

Child mortality rate

Age structure diagrams

Population pyramid

Population momentum

Net migration rate

Affluence

IPAT equation

Urban area

Gross domestic product

**Questions**

1. Explain the IPAT equation.
2. What is the theory of demographic transition?
3. How do education and demographic transitions relate to each other?
4. What are the four types of economic activity that make up the GDP?
5. Draw the three age structure diagrams: Rapid growth, Stable growth, Declining growth
6. If a population of 10,000 has 300 births, 200 deaths, 50 immigrants and 60 emigrants, what is the population growth rate?
7. List characteristics typical of developed countries.
8. What is the most critical factor in controlling the size of the human population?
9. How does a country’s degree of development influence its environmental impact?