

Name TEACHER KEY Period \_\_\_\_\_ Date \_\_\_\_\_

**Environmental Science – *Human Populations* CHAPTER 9**

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

***Environmental Science Standard and element:***

**SEV5. Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.**

**a.) Describe factors affecting population growth of all organisms, including humans. Relate these to factors affecting growth rates and carrying capacity of the environment.**

- 1.) Put chart in Science Notebook behind the **Chapter 9 Word Study** after it has been checked. \_\_\_\_yes      \_\_\_\_no
- 2.) **Key Terms and Main Ideas** were complete and accurate. \_\_\_\_yes      \_\_\_\_no
- 3.) All information was written neatly, spelled correctly, and easy to see with no abbreviations. \_\_\_\_yes      \_\_\_\_no
- 4.) **Studying Human Populations** information was complete and accurate. \_\_\_\_yes      \_\_\_\_no

*(Part of Notebook Grade)*

<b>KEY TERMS – Pick one key term from each section and write a sentence on the lines provided.</b>	<b>MAIN IDEAS – Copy the information below.</b>
<p>Chapter 9.1 Key Terms</p> <ul style="list-style-type: none"> <li>• Demography</li> <li>• Age structure</li> <li>• Survivorship</li> <li>• Fertility rate</li> <li>• Migration</li> <li>• Life expectancy</li> <li>• Demographic transition</li> </ul> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p>Chapter 9.1 Main Ideas</p> <ul style="list-style-type: none"> <li>• Human population growth has accelerated in the last few centuries. The main reasons for this growth were improvements in hygiene and increases in food production, which were impacted by the industrial and scientific revolutions.</li> <li>• Demographers try to predict population trends using data such as age structure, survivorship, fertility rates, migration, and life expectancy.</li> <li>• In the demographic transition model, countries progress through four stages of change in birth rates, death rates, and population size.</li> </ul>
<p>Chapter 9.1 Key Terms</p> <ul style="list-style-type: none"> <li>• Infrastructure</li> <li>• Arable land</li> <li>• Urbanization</li> <li>• Least developed countries</li> </ul> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p>Chapter 9.2 Main Ideas</p> <ul style="list-style-type: none"> <li>• When a growing population uses resources faster than they can be renewed, the resources most critically affected are usually fuelwood, water, and arable land.</li> <li>• In this century, countries may be labeled more developed or less developed. Not all countries are going through the demographic transition in the same way that the more developed countries did.</li> <li>• Some countries attempt to reduce birth rates directly through public advertising, family planning programs, economic incentives, or legal punishments for their citizens.</li> </ul>

## STUDYING HUMAN POPULATIONS

Directions: Read the information and answer the questions.

### The Bubonic Plague

The Bubonic Plague or Black Death was an epidemic that started in Asia and spread to Europe and North Africa in the 1300s. The plague was caused by a bacterium that was transferred from rats to humans by fleas. Effects include swelling of the lymph nodes, fever, chills, coughing, breathing difficulty, and death if left untreated. The role of rats and fleas in spreading the disease was not understood until the late 1800s. Between 1347 and 1350, as many as 20 million people in Europe died from the disease. The plague heavily affected urban areas. At that time, urban areas were crowded and unsanitary. Piles of garbage were breeding grounds for rats. Epidemics of the plague spread across Europe until the 1800's, but none were as severe as the initial outbreak. The plague still occurs today. Worldwide there are between 1,000 and 2,000 cases a year.

- 1.) What was the Bubonic Plague? \_\_\_\_\_  
\_\_\_\_\_
- 2.) What was the Black Death caused by? \_\_\_\_\_  
\_\_\_\_\_
- 3.) How was the Bubonic Plague transferred to people? \_\_\_\_\_  
\_\_\_\_\_
- 4.) How many people in Europe died as a result of the Bubonic Plague? \_\_\_\_\_  
\_\_\_\_\_
- 5.) What area of the human population was the most affected by the Plague? \_\_\_\_\_  
\_\_\_\_\_

### The Industrial Revolution

Death rates and life expectancy changed in a variety of ways during the Industrial Revolution in Europe and the United States. The movement of people into cities for employment in factories led to overcrowding and epidemics of disease. Scientific study of these epidemics led to improvements in sanitation and nutrition. Furthermore, scientists began to understand that bacteria were the cause of many diseases. This knowledge led to new methods of prevention and treatment. Infant mortality rates declined dramatically. Industrial machinery led to the production of more food, clothes, and other materials. New forms of transportation made food, medicines and other goods available to more people. So in the last 300 years, advances in health care, transportation, and agriculture contributed to rapid human population growth.

- 6.) What two things changed during the Industrial Revolution? \_\_\_\_\_  
\_\_\_\_\_
- 7.) What were the main problems that occurred when people began to move into urban areas? \_\_\_\_\_  
\_\_\_\_\_
- 8.) How did scientific studies improve the conditions of people in cities? \_\_\_\_\_  
\_\_\_\_\_
- 9.) How did transportation change life for people? \_\_\_\_\_  
\_\_\_\_\_
- 10.) What were the three main improvements that contributed to rapid population growth for people?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_