**Earth/Environmental Science Climate and Energy Unit Test STUDY GUIDE**

1. What is the difference between nuclear fission and nuclear fusion?
2. What is an advantage of safely using uranium as an energy source rather than using coal?
3. What is a major source of air pollution created by humans?
4. What can lead to the depletion of the ozone layer of Earth?
5. How is climate different from weather?
6. A company has several factories around the world and has decided to transition from burning fossil fuels to using alternative energy resources. How could a decrease in burning fossil fuels impact the atmosphere?
7. Since 1901, global surface temperatures have risen at an average rate of 0.13°F every ten years. In what way could the average increase in global temperatures influence Earth?
8. The greenhouse effect is best described as
9. Melting ice caps can result in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. An increase in ocean temperatures can cause \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
11. Recent global warming appears to be the result of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. Which climate data are needed in order to classify a climate using the Koppen climate classification system?
13. Nonrenewable resources are those that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
14. Petroleum and natural gas form from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
15. Hydroelectric power produces electricity using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
16. What substance is used as fuel in nuclear power plants?
17. Name some fossil fuels.
18. The careful and efficient use of resources is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
19. List renewable and non renewable energy resources.
20. Some automobiles in the United States are fueled by natural gas. What is the primary environmental advantage of natural gas relative to gasoline as a transportation fuel?
21. What is the primary environmental problem associated with the use of nuclear power to generate electricity?
22. Know at least 3 energy resources and the pros and cons of each resource.
23. Be able to describe each of the following causes and effects of global warming. Also, understand how they impact each other.
* Atmospheric carbon dioxide concentration
* Sea level
* Ocean temperature
* Area covered by glaciers
* Fresh water in streams
* Drought
* Permafrost
* Atmospheric methane concentration
* Global temperature
* Albedo