Name:_____ Date _____ Period _____

Webquest – Environmental Human Impact

Human Population Growth

Link 1: http://worldpopulationhistory.org/map/1/mercator/1/0/25/

Adjust the simulation and answer the following questions.

1. Where in the world did human civilizations first appear?_____
2. What was the world population in **1800**?_____
3. What was the world population in **1950**?_____
4. What is the world population **today**?_____
5. What is the expected world population in **2050**?_____
6. Identify at least three examples of *Food and Agriculture Milestones* which may have led to a significant **increase** in the human population.

7. Identify at least three examples of *Health milestones* which may have led to a significant **decrease** in the human population.

8. Find (make your Social Studies teachers proud!) and click on the "**Effects of the Industrial Revolution**." Explain how this milestone led to the exponential growth of the human population.

Link 2: https://sites.google.com/site/humanpopulationgrowthwebquest/home/human-population-group-a

9. Below are the four factors that affect population growth. ***Describe each.***

Birth Rate	
Death Rate	
Immigration	
Emigration	

10. What is the formula for ***human population change***?

11. When using the formula for population change, what does it mean when your answer is a **positive number**?

12. When using the formula for population change, what does it mean when your answer is a **negative number**?

Global Warming and Climate Change

Link 3: http://climate.nasa.gov/interactives/climate-time-machine

13. This series of visualizations shows how some of Earth's key climate indicators are changing over time. Click on each indicator, drag the toolbar, and record your general observations.

Sea Ice	Sea Level
Carbon Dioxide	**Global Temperature**

Link 4: https://19january2017snapshot.epa.gov/climatechange/climate-change-basic-information_.html

14. How much has ***Earth's temperature changed*** over the past century? How much is it projected to **rise** over the next century?

15. Define **Global Warming**:

16. Define **Climate Change**:

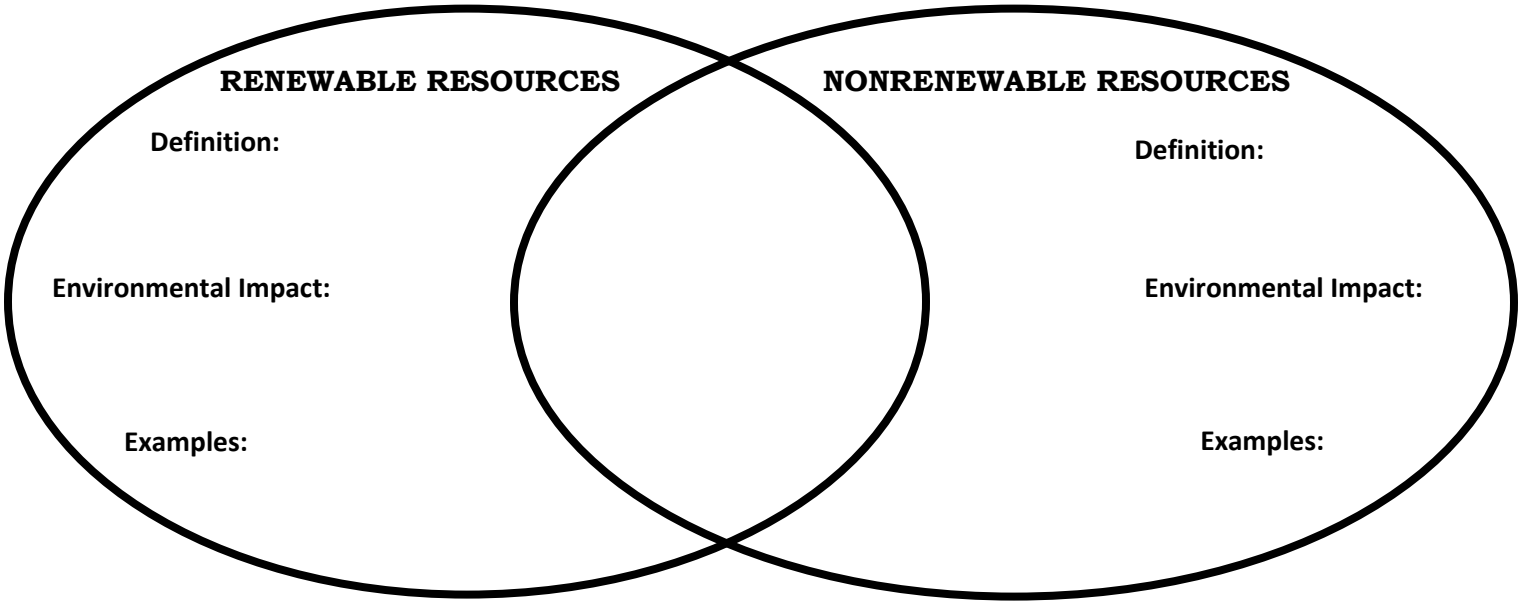
17. What are four changes in weather and climate that have occurred?

18. **Greenhouse gases, such as carbon dioxide, are not bad**. In fact, they are necessary or our world would be too cold to live in! So what's the problem? *Summarize the connection between human activities and climate change.*

Natural Resources

Link 5: https://creately.com/diagram/example/honm1oi7/Non-renewable%20vs%20Renewable%20Resource

19. Complete the venn diagram to gain a better understanding of renewable and nonrenewable resources.



Link 6: https://www.brainpop.com/games/sortifynaturalresources/

24. This playful assessment will test your understanding of Earth's resources. Sort tiles into buckets to score points. Clear the whole board to win. Be strategic when you choose your labels – difficult labels are worth more points ☺

    a. What was your original Sortify score: _____

    b. Play again to improve your score. What was your new score? _____

Pesticide Use

Link 7: http://npic.orst.edu/

25. Select ***THREE examples*** of pesticides you have used (or would consider using) and write a brief description of each. You can get a description by clicking on the name of the pesticide.

26. Under the **Health & Environment tab**, select a category under Environment.

    a. Which category did you select? _____

    b. What is something you have learned regarding pesticide usage in this area?

Pollution

Link 8: http://oceanservice.noaa.gov/education/kits/pollution/02history.html

27. Improved sanitary conditions and less disease were important factors in making cities healthier places to live, and helped encourage people to move to urban areas. *Why was pollution a major drawback to these advances*?

28. Identify the names of the US policies that significantly decreased pollution in our country.
    a. ***1972 -***

    b. ***1990 –***

29. What is the difference between **point source pollution** and **nonpoint source pollution**? You may have to click the links on the side of the webpage.

30. Why is nonpoint source pollution so *difficult to control?*

Link 9: https://www.airnow.gov/index.cfm?action=airnow.main

31. Air pollution in large cities is a prime example of nonpoint source pollution. Click on Georgia on the map and then click on Atlanta. What is the current AQI (Air Quality Index) in Atlanta? _____

    Click on Air Quality Map Archives to take a look at Atlanta's air quality history.

Link 10: https://www3.epa.gov/recyclecity/games.htm

Play the Dumptown City Game (Internet Explorer or Firefox!). You are taking on the role of Dumptown City Manager and are in charge of selecting the programs. You may want to explore the major sources of waste first.

32. Name two programs that will save the city money.

    a. If you had $75,000 to spend, what program(s) would **you** choose to maximize recycling in Dumptown?

    b. How much would be ***recycled***? _____ What would be the ***total cost***? _____

If you have extra time or want to explore more of these environmentally related topics at home…

Play the Water Wiz. Learn all about your water footprint in your home.

http://kids.nationalgeographic.com/kids/games/puzzlesquizzes/water-wiz/

Eutrophication and Algal Blooms

http://coseenow.net/blog/2008/11/eutrophication-animation/

Explore Renewable and Nonrenewable Energy

http://www.pbs.org/wgbh/nova/labs/lab/energy/

Take this Earth Day Quiz Wiz to find out how "GREEN" you are!

http://kids.nationalgeographic.com/games/quizzes/earth-day-quiz-whiz/

Which US National Park fits you best?

http://kids.nationalgeographic.com/games/quizzes/national-parks-personality-quiz/