Green Generation Test

- 1. Describe the goal of a environmentally stable society:
- 2. Perpetual and renewable Resources:
 - a. What are differences between a perpetual and a renewable resource?
 - b. Explain the benefit of using a perpetual resource vs. using a renewable resource:
- 3. Define environmental degradation:
- 4. What is the tragedy of the commons?
- 5. How can the tragedy of the commons be prevented?
- 6. Use of which energy source currently generates the largest amount of CO2 emissions and why?
- 7. Define ecological tipping point:
- 8. Why are the properties of water important? Give two examples of biological/ecological scenarios where water's unique properties are important to the function it serves.

- 9. In order of highest priority, list the three Rs
- **10.** Using the sequence from the question above, explain the its order and its significance to sustainability:
- 1.
- 2.
- 3.
- 11. What is an example of a point source pollutant?
- 12. Why is a nonpoint source more difficult to control than a point source?
- 13. What are green house gases?
- 14. What are some ways to curb carbon emissions in the industrial sector?
- 15. Why is it important to prevent pollution, rather than clean it up afterwards?
- 16. What is the difference between a decomposer and a detrivore?

17. What is the importance of nutrient cycling?

- **CARBON CYCLE** • Carbon stores Atmosphere Processes Burning fossil fuei Burning Carbon dioxide exchange Decay NC. Vegetation Weathering and run-off Coal, oil, or Phytoplankton Deep circulation Sinking sediment © 2007-2010 The University of Waikato | www.sciencelearn.org.nz
- **18.** Label the carbon cycle below:

- **19.** Relate nutrient cycling to the three principles of sustainability:
 - 1.
 - 2.
 - 3.
- 20. Describe the difference between weather and climate:
- 21. How does the ocean affect global warming and Earth's climate?

- 22. Define water shed:
- 23. List three advantages of dams:
- 24. List three disadvantages of dams:
- 25. What are the three limitations of desalination?
- 26. Distinguish between a mutagen and a carcinogen:
- 27. Is it possible for a mutagen to be a carcinogen?
- 28. Distinguish between primary and secondary pollutants:
- 29. Is dilution a solution to pollution?
- 30. Differences between industrial and photochemical smog:
- **31.** List four indoor air pollutants:
- 32. In what quantity is lead deemed toxic, and why?
- 33. Why should we prevent/clean up indoor air pollution?

34. List one of the human body's defenses against pollution and how it can be overwhelmed:

- 35. What is the greenhouse effect?
- **36.** Define indicator species:

37. Composting is most closely related to:

- a. Nutrient Cycling
- b. Natural service
- c. Reusing
- 38. Where does all the energy in an ecosystem originate from, and how does it travel in a food chain?

39. Gasoline is produced by refining which fossil fuel?

- a. Oil
- b. Natural Gas
- c. Propane
- d. Coal

40. What are some disadvantages to wind power?

41. How do solar panels convert the Sun's energy into electricity?

- 42. Why do food pyramids typically end around the tertiary/quaternary consumer?
- 43. How has natural selection powered evolution?
- 44. Is this exponential, or logistic growth?



- 45. In the graph above, what is K referred to as?
- 46. Explain the healthy forest initiative act:
- 47. What did the Clean Air Act of 1970 accomplish?

48. What is the global effect of ocean currents?

49. Why is methane collected from sanitary landfills?

50. How can a dam cause international issues?

51. What are the causes of dead zones in the ocean?

52. Why is ozone at the poles depleted when pollution is closer to the equator?