**Ecology Review Guide**

**Vocabulary**

|  |  |
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| 1. | Eats only plants |
| 2. | An organism that makes its own food |
| 3. | Eats plants and animals |
| 4. | Eats only animals |
| 5. | Breaks down dead material; receives energy from all trophic levels |
| 6. | Always the bottom trophic level |
| 7. | All the living and nonliving things in an area |
| 8. | All the living things in an area |
| 9. | Everywhere on Earth that life exists |
| 10. | All of a species in an area |
| 11. | A single living thing |
| 12. | Two organisms existing together in a relationship other than predation |
| 13. | When one organism obtains energy from consuming another |
| 14. | When one organism benefits and the other is unaffected |
| 15. | When one organism benefits and the other is harmed |
| 16. | When both organisms benefit |
| 17. | When two populations both have need for the same resources |
| 18. | When a species from another ecosystem inhabits an new area (due to human interactions) and outcompete the native species |
| 19. | The maximum population size in an area |
| 20. | Type of growth without limit |
| 21. | The three types of fossil fuels |
| 22. | Factor that limits the size of a population and is affected by its size. Ex. Food supply, disease, and predation |
| 23. | Factor that limits the size of a population regardless of size. Ex. Floods, fires, and storms |
| 24. | Water found below the Earth’s surface |

**Ecological pyramids**

25. How much energy is transferred from one trophic level to the next? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

26. List the following in order of greatest energy to least energy: **tertiary consumer, secondary consumer, producer, primary consumer**

27. Arrows are drawn from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in a food web and indicate the transfer of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from one organism to another.

28. **Levels of organization:** List the following in order from smallest to largest: molecule, organelle, atom, cell, biosphere, community, ecosystem, population, organism, tissue, organs, organ systems, macromolecule

29. **Nutrient Cycles: Be able to interpret the three main nutrient cycles and answer comprehension questions about them…**

**Water Cycle, Carbon Cycle and Nitrogen Cycle.**

|  |  |
| --- | --- |
| **Carbon cycle** | **Nitrogen Cycle** |
| Natural way to removes carbon dioxide from the atmosphere | Two natural ways to remove nitrogen from the atmosphere |
| Two natural ways for carbon dioxide to enter the atmosphere | Two natural ways to add nitrogen to the atmosphere |
| Two human influenced ways for carbon dioxide to enter the atmosphere | Two human influenced ways to add nitrogen to the atmosphere |
| One problem from the release of carbon dioxide from burning fossil fuels | One problem from the release of nitrogen from burning fossil fuels |
| Process common to both carbon and nitrogen cycles | |

30. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are molecules that destroy good ozone in the stratosphere. These molecules were produced by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Ozone in the stratosphere is good because it protects organisms from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

31. Burning fossil fuels leads to an increase in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the troposphere, reaching an all time high for carbon dioxide levels. These gases trap \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the sun, leading to an increase in global \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. These increases in temperature are happening \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dramatically than in the past.

32. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs when sulfur dioxide and nitrogen oxides react with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the atmosphere to produce sulfuric and nitric acid. These fall to the earth and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the pH of soils and bodies of water. Sulfur dioxide and nitrogen oxides are produced when humans \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Human Impact:**

Be able to interpret resource availability due to population growth.

Name some factors that affect carrying capacity…. Abiotic and Biotic

What are the 3 R’s that help humans maintain sustainability of our Earth?