

Biology Study Cards

Reference

Complete each card as directed. Tell why the information is important to you personally. Add any information you like. Choose carefully to make your cards a useful resource. Don't add words just to fill the card. You will be adding information throughout the year. **Each card must be numbered in the lower right-hand corner on the front. Work neatly!*

Set 1: Ecology Due Sept 13

1. Biome - definition and example
2. Ecosystem - definition and example
3. Community - definition and example
4. Population - definition and example
5. Organism - definition and example
6. Ecology - definition and example
7. Model - definition and example
8. Producer - definition and example
9. Consumer - definition and example
10. Biotic - define, example
11. Abiotic - define, example
12. Keystone species - define, example
13. Biodiversity - define
14. Cladogram - describe, example

Set 2: Living Things and Science and Background Due Sept 13

15. Characteristics of living things - just list them; details on other cards, later.
16. Organizational hierarchy of living things, beginning with the smallest (atom) and moving up the hierarchy through biosphere.
17. Nature of Science: Hypothesis, law, theory, definition and example for each

Set 3: Atomic Structure and Water Due Sept 15

18. A block from the periodic table. Label atomic number, atomic mass. Explain how to find number of protons, neutrons, electrons, valence electrons
19. A water molecule; atoms labeled, polarity labeled, covalent bonds labeled
Hydrogen Bonds correctly drawn between 4 water molecules; bonds labeled
20. 4 Properties of water, defined, examples
21. Ion formation and oxidation - Reduction
22. pH - sketch the scale, label examples of different pH solutions
23. Acid - define, give examples
24. Base - define, give examples

Set 4: Biochemistry: Functional Groups Due _____

Draw the structure of each and write the name on the back. On the back, also write which biomolecule the functional group identifies.

25. Carboxyl
26. Hydroxyl
27. Amine
28. Phosphate

Set 5: Organic Molecules Due _____

One card per biomolecule. For each biomolecule, card include

- sketch of the general structure on one side. Circle the identifying functional group
 - If applicable, list a monomer, a polymer, and a macromolecule, including the specific term for each (ex. A polymer of amino acids is a polypeptide; sucrose is a disaccharide, etc)
 - List the function in the cell and a dietary source
29. Protein/Amino acid and label peptide bonds
 30. Carbohydrate
 31. Lipid
 32. Nucleic Acid
 33. ATP

Biome - large ecological area in which plants and animals with some common characteristics for the environment live

Examples : Aquatic
- freshwater
- marine

Deserts
- hot dry
- semiarid
- coastal
- cold

Forests
- tropical
- temperate
- boreal (taiga)

Grasslands
- savanna
- temperate

Tundra
- Arctic
- Alpine