

Biology

Chapter 2 Study Guide

1. Draw and atom and label the following: electron, neutron, nucleus and proton. Also add the charges.
2. Contrast ionic and covalent bonds. Give an example of each.
3. Identify the two parts of a solution.
4. State the name of the four most common elements in the human body.
5. Describe what makes water is polar (why is water polar?).
6. State the name type of bond exists between two neighboring water molecules.
7. Explain why this bond between two neighboring water molecules is important to water's properties.
8. List the properties of water (from the coloring worksheet) and give an example of each property.
9. State in terms of protons (hydrogen ions) what makes a solution an acid or base.
10. State the name of the scale used to measure the amount of acid.
11. State the name the four macromolecules and state their functions.
12. State the name the general name of the monomers and polymers for each macromolecule (except lipids). Give a specific example of each monomer and polymer.
13. State the two parts of a lipid? Give an example of each class of lipids.
14. Write an example of a chemical reaction. Label the reactant(s) and product(s).
15. State the definition of an enzyme.
16. Describe why enzymes important to living things.
17. State what happens after an enzyme has been involved in a chemical reaction.
18. Outline three things that can alter enzyme activity.
19. Draw a diagram of a reaction involving an enzyme. Label the following: enzyme, active site, substrate and product.
20. Name the indicators and what they test for from the Macromolecule Lab.

Chapter 32 Study Guide

21. State the six types of nutrients and outline how each is necessary for maintaining homeostasis.
22. State the two general types of vitamins, and describe why they are necessary in our diet.
23. State why minerals are important in our diet.
24. Outline how mechanical and chemical digestion work together to break down foods.
25. Describe how the folding of the small intestine (with the many villi and microvilli) helps to accomplish digestion.
26. Create a simple story that outlines the path of a meal (tuna fish sandwich, no crust) that contains simple carbohydrates, complex carbohydrates, proteins and lipids, and what happens to the nutrients as it passes through the digestive system.