

Biochemistry Study Guide

Name _____ Per. _____

1. We study chemistry in a biology class because _____
2. Why do organisms require water to live? _____

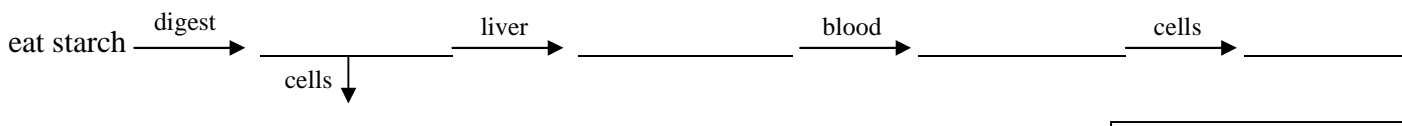
Type of Chem Reaction	H ₂ O is...	What happens?
3.		
4.		

4 Macromolecules	Monomer(s)	Different Polymers of That Macromolecule
5.		
6.		
7.		
8.		

Carbohydrates

Molecule Type	Function	Plant/Animal/Both	Drawing
9.			
10.			
11.			
12.			

13. Fill in the different carbohydrate forms as it is digested, stored, & used in our bodies, starting with starch.



Proteins

14. Also called _____.
15. Monomer: _____
16. Function depends on its _____ & _____ sequence.
17. The term used when a protein loses its shape & function is _____.

Monomer drawing:

18. Found in all _____. Functions include but are not limited to:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

Polymer drawing:

19. Why is it important to eat a balanced diet?

Lipids

20. What property do all lipids share? _____

Polymer Type	Function	Plant/Animal/Both	Drawing
21.			
22.			
23.			
24. ★	★		

Nucleic Acids

25. What is the Central Dogma of Molecular Biology? _____

Type	Function	Sugar Name	N Bases	Drawing	
26.				monomer:	polymer:
27.				monomer:	polymer:

28. **Enzymes** (Biological _____): _____

- a. _____: reactant
b. _____: place on enzyme where the reactant fits & reaction happens
c. _____: what you end up with

29. How an enzyme works:

- a. _____
b. _____
c. _____

30. What is activation energy? _____

31. What 2 factors can decrease the effectiveness of an enzyme?

- a. _____ b. _____

32. How do the above 2 factors affect enzyme reactions? _____

33. What does pH measure? _____

34. The normal range of pH for organisms is _____ because _____

35. Label the parts of a chemical equation involving an enzyme: _____ → _____