

Study Guide: Unit 1 - Macromolecules

[Notebook pages _____ - _____]

☆ Study Strategies ☆

- **Write 3 times:** Write the answer 3 times. This is helpful with memorizing information.
- **Draw and label:** draw a diagram of the process (labeling the parts) and explain how it all works. This is helpful with learning patterns in the cycles or repeating processes. Combining this with “write 3 times” can help you memorize the pattern.
- **Explain like I’m 5:** Write the answer to the question like you are explaining it to a 5 year old. Include all the important information but in simple language a kid would understand.
- **Venn Diagram:** Create a venn diagram to compare and contrast the 2 things. Have 5 points for each of the sides (differences) and 3 points for the middle (similarities).
- **Flashcards:** Create flashcards with the word/question on one side and the definition/answer on the other side. Use your flashcards. If you get the flashcard right, put a check in the corner of the card and put an “x” in the corner if you get it wrong. Repeat the cards until you get all of them right 3 times.
- **Test questions:** Write questions that might be similar to a question you will see on the test. Level 1 questions can be multiple choice and level 2 questions should be short answers. Be sure to include the correct answer!

Topics & Main Ideas:

- ★ Proteins
- ★ Lipids
- ★ Carbohydrates
- ★ Nucleic Acids
- ★ Enzymes
- ★ Denaturing
- ★ Digestive System
- ★ Urinary System

Vocab:

1. Monomer
2. Dehydration Synthesis
3. Hydrolysis
4. Carbohydrates
5. Macromolecules
6. Lipids
7. Proteins
8. Nucleic Acids
9. Enzyme
10. Activation energy
11. Active Site
12. Substrate
13. Reactant
14. Product
15. Catalyze
16. Denature
17. Inhibitors

Questions:

1. How are macromolecules made and broken down?
2. List the 4 categories of macromolecules, their polymers, their monomers, their function, and where they are digested.
3. Describe the function of amylase, pepsin, lipase, and protease.
4. What are the chemical and physical differences between saturated and unsaturated fat?
5. Why are your liver, pancreas, and gallbladder important to digestion?
6. Compare and contrast mechanical and chemical digestion.
7. Describe absorption.
8. Label the digestive system.
9. Label the urinary system.
10. Compare and contrast the function of the digestive and urinary systems.
11. Describe the process that starchy foods go through to be digested.
12. Describe the process that protein rich foods go through to be digested.
13. Describe the process that fatty foods go through to be digested.
14. Label the diagram of an enzyme and substrate.
15. Describe the different ways an enzyme can become unable (or less able) to do its job.
16. What are enzymes made of?
17. Compare and contrast matchmaker and gossip enzymes. Why is it important to have both in the human body?

