

NUTRITION & DIGESTION READING GUIDE

Answer the following questions as you read Sections 32.1-32.3 (starting on pg. 971) using your own words.

1. There are six (6) **nutrients** that help humans to maintain homeostasis. List these nutrients needed every day and for each, briefly describe their function in the body (What are they needed for?)
 - 1)
 - 2)
 - 3)
 - 4)
 - 5)
 - 6)
2. Many dieticians recommend drinking 8 glasses of water a day; Why do you think humans need this much fluid to maintain homeostasis?
3. What is the difference between **saturated** and **unsaturated fats**?
4. Which of the six (6) nutrients you listed above supply the body with energy? _____
5. What is the main function of **digestion**?
6. Give an example of both **mechanical** and **chemical digestion**.
7. How do **smooth muscles** and **sphincters** help keep food moving in one direction throughout the digestive system?
8. Digestion begins in the mouth and ends in the small intestine. For each digestive structure below, summarize the digestive processes that occur here:
 - 1) Mouth -
 - 2) Esophagus -
 - 3) Stomach -
 - 4) Small intestine -

9. Each structure along the digestive pathway contains digestive **enzymes** that break down food into the nutrients. For each enzyme below, identify their function, where they are found, and which macronutrient they digest:
- 1) Amylase -
 - 2) Pepsin -
 - 3) Lipase -
10. What keeps the stomach from digesting itself? _____
11. What happens after digestion is complete?
12. What is **absorption** and why is it important in your body?
13. There are three (3) sections of the small intestine that all have different jobs. For each listed below, explain their function in digestion and/or absorption of nutrients:
- 1) Duodenum -
 - 2) Jejunum -
 - 3) Ileum -
14. What structures exist in the small intestine that absorb nutrients? _____
15. Why is it important for food to move slowly through the small intestine?
16. What happens when nutrient-rich blood leaves the small intestine and enters the liver?
17. What is the function of the **large intestine**?
18. In what ways can bacteria in the large intestine be helpful and harmful?
19. How is solid waste eliminated from the body?
20. What materials make up this waste?