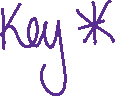
**Enzymes, Tissues & Digestive System**

**Unit Review 2020**

**Test Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

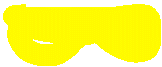


**Learning Goals:**

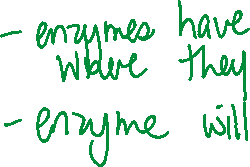
1. I can explain the functioning of an enzyme
2. I can explain the various types of tissues that make up the human body
3. I will be able to the structures and functions of the organs of the digestive system
4. I will be able to explain the roles of the various enzymes of the digestive system

**Learning Goal #1 🡪I can explain the functioning of an enzyme**

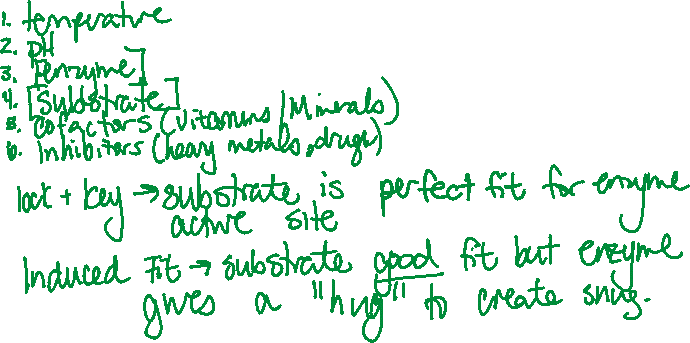
1. Draw and label the various parts of an enzyme (enzyme, active site, substrate)



1. Why does the pH of the environment matter when it comes to functioning enzymes?



1. What are the six factors that impact enzyme functioning?
2. Explain the difference between the lock and key and induced fit theories of enzyme functioning.

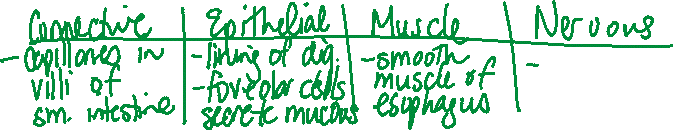


**Learning Goal #2 🡪 I will explain the 4 types of tissues in the human body**

1. What are the four types of tissues?



1. Where in the digestive system would you find each of the tissue types



**Learning Goal #3 🡪 I will be able to identify the structure and function of the following parts of the digestive system**

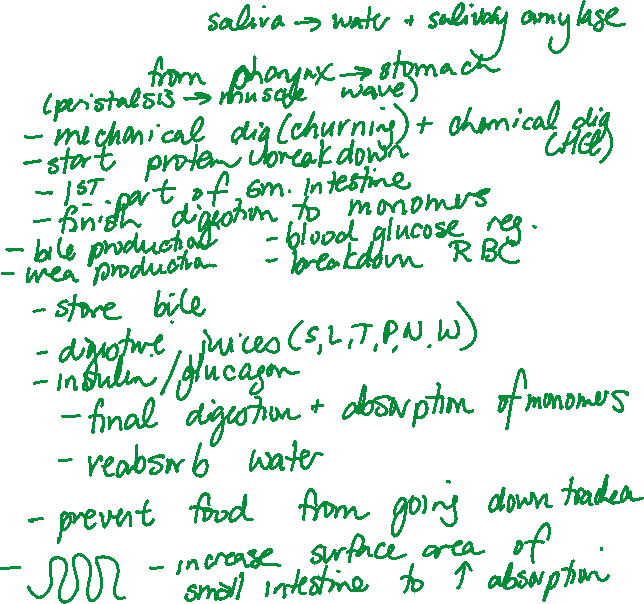
1. Complete the function of the below structures:
   1. Salivary glands



* 1. Esophagus



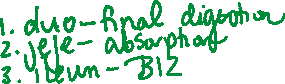
* 1. Stomach
  2. Duodenum
  3. Liver
  4. Gallbladder



* 1. Pancreas
  2. Small intestine
  3. Large intestine
  4. Epiglottis
  5. villi



1. Draw and label the 3 main parts of the small intestine



1. What is the order of the sphincters from mouth to anus?



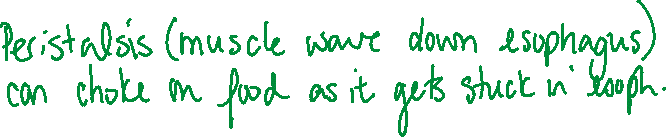
1. Why do we have E. coli in our large intestine?



1. What is mechanical digestion and where does it occur?



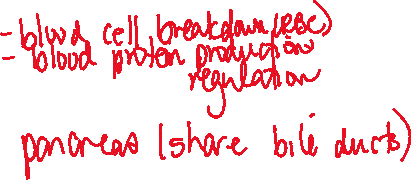
1. How does the bolus of food travel down to your stomach?
2. What happens when someone has peristalsis impacted?



1. Are there any other structures other than the esophagus that might have some level of peristalsis as well? Why?



1. What are the 6 major functions of the liver?

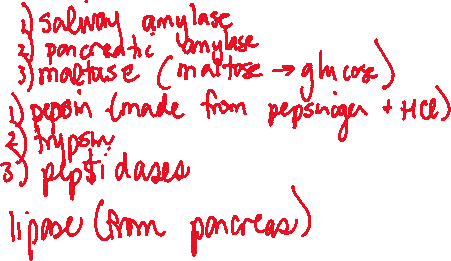


1. What other structures of the digestive system work with or contribute to the liver?



**Learning Goal #4 🡪 I can explain the roles of the various digestive enzymes**

1. What are the 3 main enzymes that help in the hydrolysis of starch? What do they make? What pH does each function best at?
2. What are the 3 main enzymes that help in the hydrolysis of proteins? What do they make? What pH does each function best at?



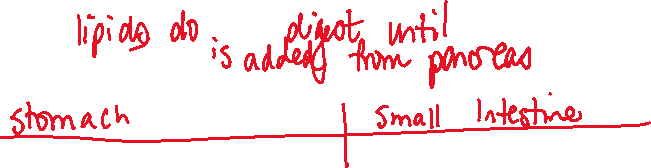
1. What is the 1 main enzyme that help in the hydrolysis of fat? What do they make? What pH does each function best at?
2. What are some disorders that can negatively impact our enzyme functioning of our digestive system?



1. What type of food items would still NOT be digested after passing through the mouth and stomach? Why?



1. Compare the chemical composition of the CONTENTS of the stomach when you have eaten a meal consisting of protein, carbohydrates, and fats to that of the small intestine an hour later?

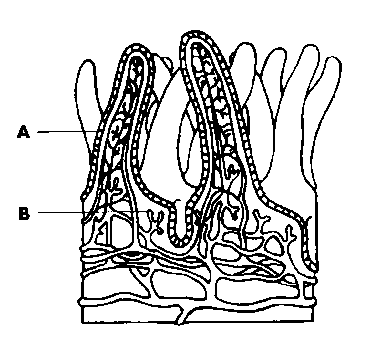


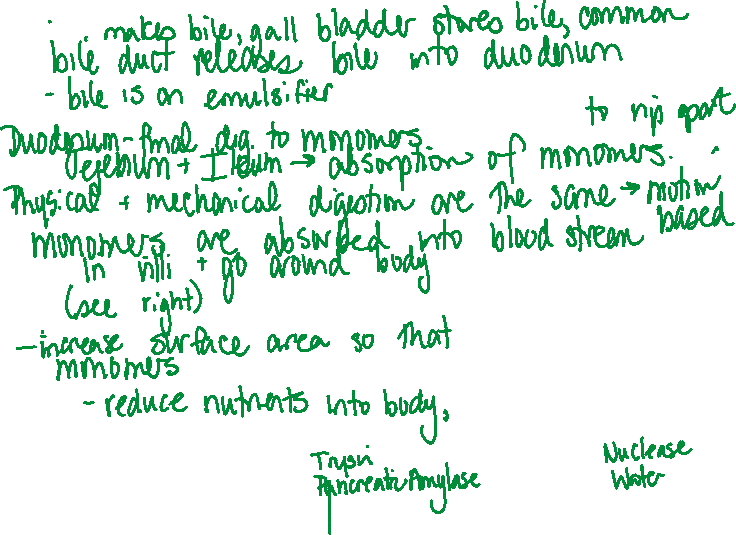
1. What structures produce or assist bile? How?



1. What happens to fat as bile “digests” it? What does it get formed into? What happens next?



1. What is the role of the small intestine? Where does it do this?
2. What is the difference between physical and mechanical digestion?
3. Where do the nutrients go? What happens next to them? Why is this important?



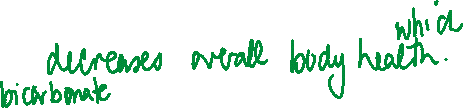
1. Label the parts of the below structure



1. Why are these villi “fingers” part of the structure of the small intestine?



1. What would happen if some of the villi of the small intestine were not working properly?



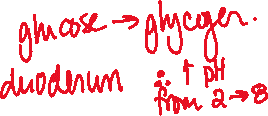
1. What is in the pancreatic juice?



1. What does each molecule in the pancreatic juice do?



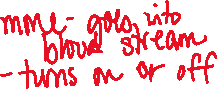
1. How does the functioning or non-functioning of the pancreas impact diabetes?



1. What would happen if the pancreas DID NOT release sodium bicarbonate?



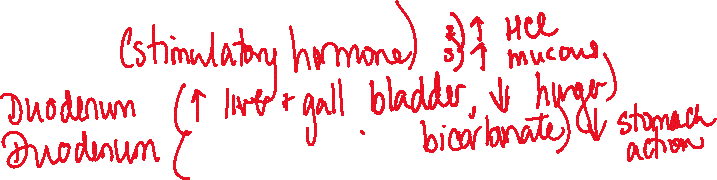
1. What is the difference between an enzyme and a hormone?



1. What is gastrin? Where is it made? What does it do?



1. What is CCK? Where is it made? What does it do?



1. What is secretin? Where is it made? What does it do?



1. What is Gastric Inhibitory Peptide? Where is it made? What does it do?
2. What is an enzyme?

