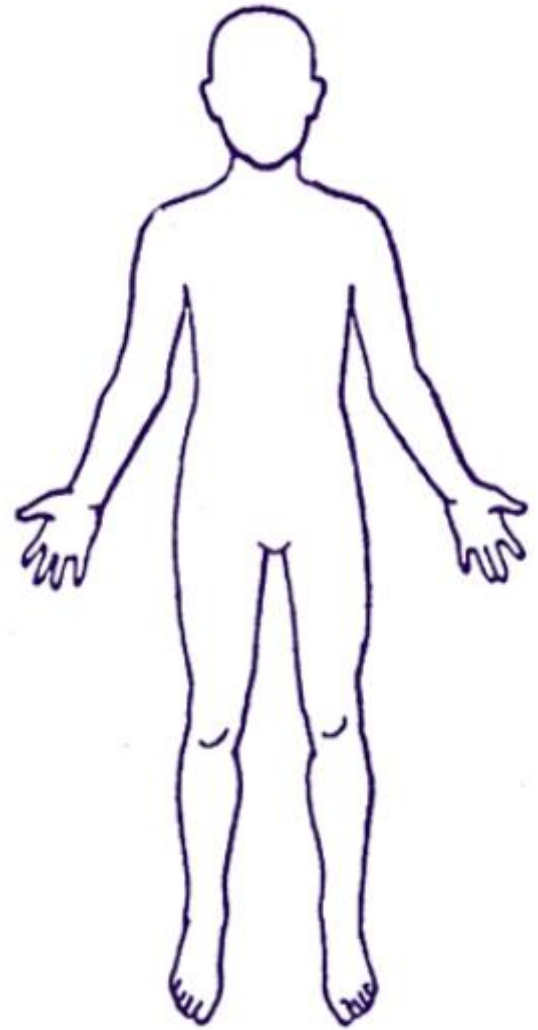


## SUMMER HOMEWORK #3: DIGESTIVE SYSTEM!!

**Part One Directions:**

- 1) Go to google images and look for a diagram of the human digestive system on the web. In the blank body to the right, draw all of the digestive organs. **Label each organ clearly!**
- 2) The digestive process in humans is broken up into four stages: ingestion, digestion, absorption, and elimination. In the table below, describe what occurs in these stages and what digestive organs are used in the process. Use any website you would like.



Digestive Stage	Description of Stage	Digestive Organs used in Stage
Ingestion		
Digestion		
Absorption		
Elimination		

**Part Two Directions:**

Fill out the table on Page 2 using the internet.

**Part Three Directions:**

The following was an AP Free Response questions that was given on a past AP test. Read the question carefully and answer each section to the best of your ability. You may use your book, the internet, or notes to answer this section, but please do not use each other! Also, make sure everything is answered in a paragraph form. Be prepared to discuss on the first day of school!

1. Organisms utilize a diversity of methods to obtain proper nutrition.
  - (a) Some organisms digest food intracellularly, while others digest food extracellularly.
    - **Identify** ONE nonvertebrate organism that digests food intracellularly and **describe** the process.
    - **Identify** ONE nonvertebrate organism that digests food extracellularly and **describe** the process.
  - (b) **Describe** TWO structural features of the human stomach and/or small intestine. For each, **explain** how the structure relates to the function.
  - (c) Plants have a variety of mechanisms for obtaining nutrients. **Describe** TWO plant structures and **explain** how each structure is utilized in nutrient uptake.

## **DIGESTIVE SYSTEM: ENZYMES AND FUNCTIONS**

**Background:** An enzyme is a chemical that speeds up reaction rates. The enzyme is not altered in the process. Enzymes are key ingredients in the human digestive process. For each enzyme listed below, identify what digestive organ creates this enzyme and identify the function of this enzyme.

<b>Name of Digestive Enzyme</b>	<b>Digestive Organ that created the enzyme</b>	<b>Function of enzyme</b>
Salivary Amylase		
Pepsin		
Trypsin/chymotrypsin		
Pancreatic nucleases		
Bile Salts		
Pancreatic lipase		

**Part Four: Ulcers!**

Research the most common digestive system problem in the United States, ulcers. Answer the questions below about ulcers. Be sure to cite your source of information!

1) In general, what are ulcers?

Internet Source: \_\_\_\_\_

2) What bacteria cause ulcers?

Source: \_\_\_\_\_

3) Why can ulcers potentially be fatal?

Source: \_\_\_\_\_

4) What are the symptoms of ulcers (how do you know you have it?) Give at least three.

Source: \_\_\_\_\_

5) How are ulcers treated?

Source: \_\_\_\_\_

6) How can ulcers be prevented (how can we not get it)?

Source: \_\_\_\_\_

7) Do you know anyone who has ulcers in your family? How did they acquire this problem?

Source: \_\_\_\_\_