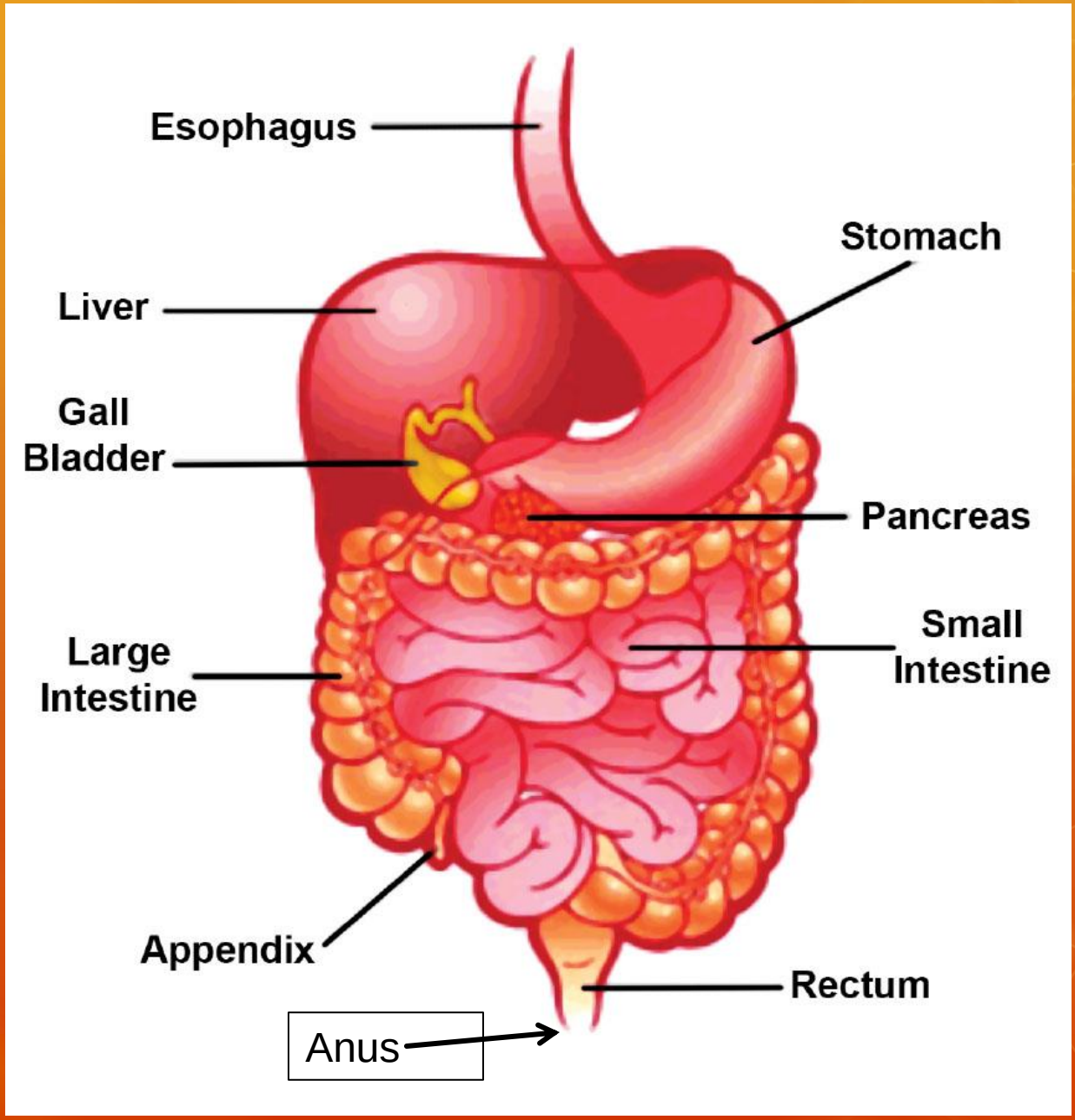
GASTROINTESTINAL SYSTEM

The "DIGESTIVE" System

Anatomy

Function:

- **Physical and chemical breakdown of food so it can be used by the body**
  - Ingestion- intake of food
  - Digestion-breakdown of food into nutrients
  - Absorption-nutrients enter bloodstream and are delivered to the body
  - Elimination- unused solid waste expelled (fiber, fat, protein & bacteria)


Esophagus
Stomach
Liver
Gall Bladder
Pancreas
Small Intestine
Large Intestine
Appendix
Rectum
Anus

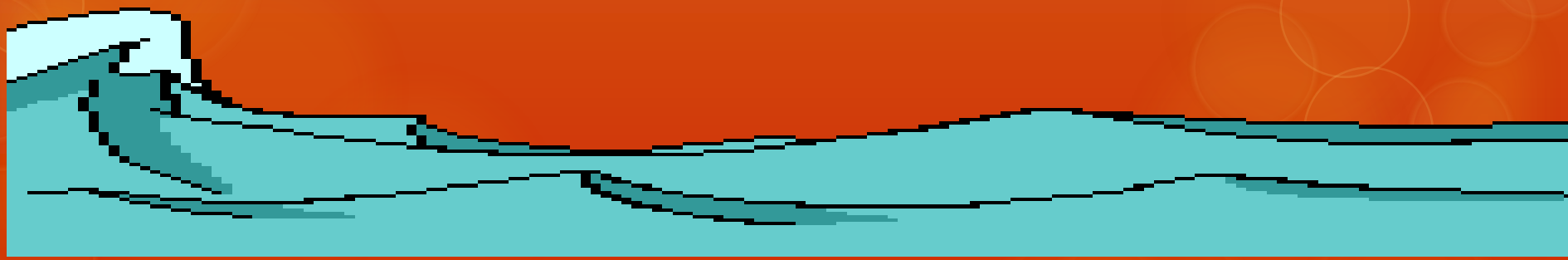
Parts of the Digestive System

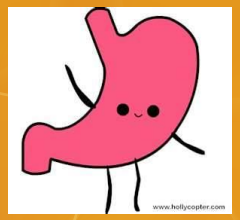
Oral Cavity

- **Mouth:** receives food into the oral cavity as it is tasted and broken down by the *teeth*. (mastication)
- **Teeth:** hard structures in the mouth that breakdown food by chewing
- **Tongue:** muscular organ that contains *taste buds*. Aids in chewing/swallowing (deglutition).
- **Salivary glands-** secrete amylase that aids in chemical breakdown of starchy foods

Parts of the Digestive System (continued)

- **Pharynx:** (throat) carries both food, liquid & air.
  - Nasopharynx
  - Oropharynx
  - Laryngopharnx
- **Esophagus:** muscular tube that carries the food to the stomach. Relies on *peristalsis* to move the food.



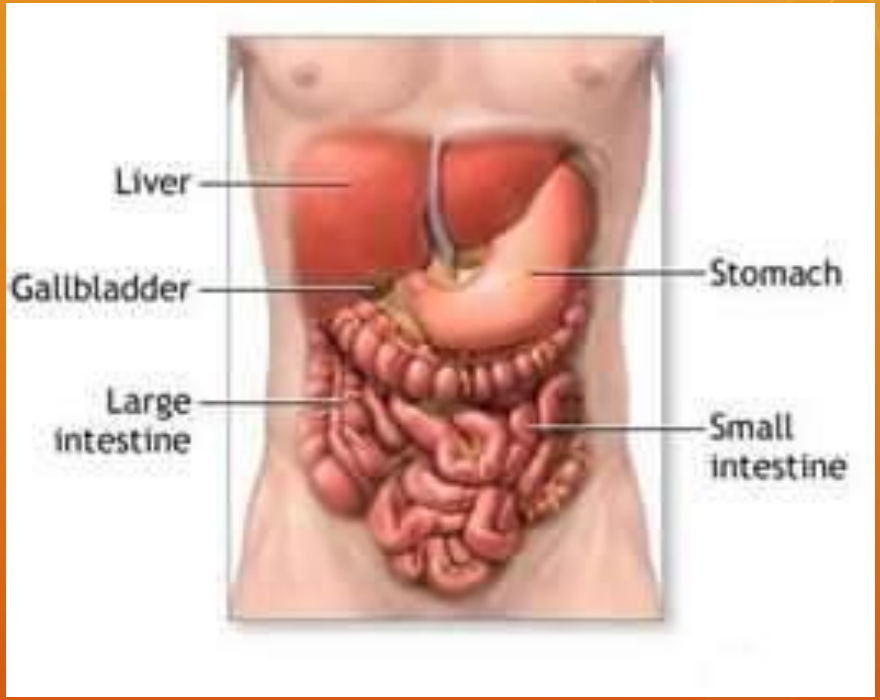


GI Structures

- **Stomach:** receives food from the esophagus. Food usually remains in the stomach for 1-4 hours
- **Small intestine:** process of digestion is completed here
  - 17-20 feet long/ 1 inch in diameter
  - 3 sections: duodenum, jejunum, ileum
- **Colon (Large intestine):** absorbs liquid (water) and remaining indigestible materials (*feces*) which are excreted from the body at the *anus*.
  - 5 feet long/ 2 inches in diameter
  - 6 parts: cecum/appendix, ascending, transverse, descending, sigmoid, rectum
- **Rectum**: last part of the large intestine that stores waste before it passes out of the body through an opening called the **Anus**
- **Feces:** (stool) indigestible waste expelled through the anus (opening at lower end of the digestive tract).

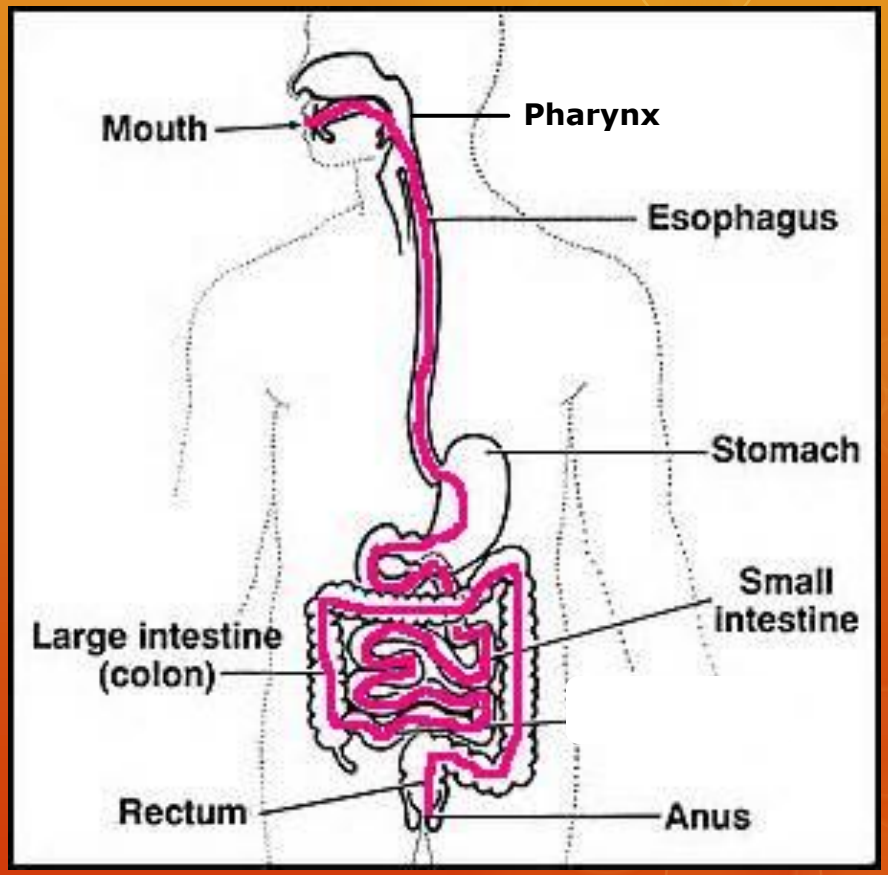
ACCESSORY ORGANS OF THE DIGESTIVE SYSTEM

- **Liver:**
  - Storage of nutrients
  - Breaks down fats and helps remove wastes from the body
  - Coverts glycogen to glucose for energy
  - Makes bile (breaks down fatty foods)
  - Located in RUQ
- **Gallbladder:**
  - stores and concentrates bile (small sac located inferior to the liver)
- **Pancreas:**
  - Produces insulin & enzymes for digestion



Pathway of Food Through Digestive System

- **MOUTH**
- **PHARYNX**
- **ESOPHAGUS**
- **STOMACH**
- **SMALL INTESTINE**
- **LARGE INTESTINE**
- **RECTUM**
- **ANUS**



Agenda

- Group Practice
- Calendar
- Flipped Classroom terminology/vocabulary
- Complete any missing journal work

Nutrition: Food Label Practice

1. What is the serving size of this product?
2. How many calories are in 1 serving?
3. How many servings are in each bag?
4. How many calories are in each bag?
5. How many fat calories are in 1 serving?
6. How many grams of fiber are in 2 servings?

Ingredients: Dehydrated Potatoes, Modified Food Starch, Corn Oil, Sugar, Salt, Soy Lecithin, Leavening (Monocalcium Phosphate and Sodium Bicarbonate), and Dextrose.
No Preservatives.

Nutrition Facts

Serving Size 1 oz. (28g/About 10 crisps)
Servings Per Container 10

Amount Per Serving	
Calories 120	Calories from Fat 30
	% Daily Value*
Total Fat 3g	**5%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 200mg	**8%**
Total Carbohydrate 21g	**7%**
Dietary Fiber 2g	**6%**
Sugars 2g	
Protein 2g	

Vitamin A 0%	•	Vitamin C 6%
Calcium 4%	•	Iron 0%
Thiamin 4%	•	Niacin 6%
Vitamin B6 4%	•	Phosphorus 8%
Zinc 2%		

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

FLIPPED CLASSROOM
*Define/Describe the following:

- Hernia
- GERD
- Anorexia Nervosa
- Bulimia
- Ascites
- Constipation
- Dehydration
- Diarrhrea
- Emesis
- Eructation
- Flatus
- Nausea
- Ulcer
- Jaundice
- Regurgitation
- Halitosis
- Ulcerative Colititis
- IBS
- Dental Caries
- Espohageal varices
- Celiac Disease
- Crohn's Disease
- Colon Cancer