Digestion involves a mechanical and a chemical process.

Mastication: Is when you chew and break down food.

The mouth mainly just breaks down carbs, otherwise it is a mechanical process.

Most of digestion occurs in the small intestine.

Macronutrients become micronutrients in digestion with the help of enzymes.

Carbohydrates-amylase-monosaccharide.

Proteins-trypsin and chymotrypsin-amino acids.
Lipids-lipase-fatty acids & glycerol.

**AIDS IN DIGESTION:**

**Peristalsis:** Rhythmic movement that propels food through the digestive tract.

**Lacteals:** Absorb fat in the intestine, go to lymph system.

Fats take longer to digest.

**Lymph System:**
Stomach:

Facts:

Pyloric sphincter allows food to pass in the duodenum.

Stomach is acidic because of HCL (hydrochloric acid), this lowers the pH.

Lining of stomach is protected by mucus.

Proteins in the stomach are broken down by pepsin and HCL into polypeptides, and the pancreatic enzymes (HCO3) converts polypeptides into amino acids.

Bolus turns to chyme in the stomach.

Renin: A gastric enzyme found in infants, and not adults that coagulates milk.
Gallbladder:
Bile emulsifies fats, is made in the liver, and concentrated in the gallbladder. This aids digestion.

Cholecystokinin: Hormone responsible for stimulating the gallbladder to contract and release bile into the small intestine from presence of fat in the duodenum.

Large Intestine:
- Surface of folds, villi, and microvilli - increase surface absorption.

FUNCTIONS OF LARGE INTESTINES:
- Assists in decomposition of undigested food (gas).
- Reabsorbs water & minerals.

After absorption:
- End products of carb & protein digestion enter blood.
• Bacteria in bowel will decompose undigested food resulting in gas.

**Absorption:** Process in which nutrients enter the vascular and lymphatic system.

**Metabolism:** Sum total of chemical changes that an organism performs to maintain its life and produce energy.