Digestive System

- Path
  - Mouth (ingest)
  - Oral Cavity (digest)
    - Mastication
      - Physical break down
        - Teeth (32)
          - Incisors — cut
          - Canines — rip
          - Molars — grind
        - Muscles
          - close jaw
            - Masseter
            - Temporalis
          - push food back
            - Buccinator
            - Tongue
      - Chemical break down
        - Saliva
          - ph
          - enzymes
            - amylase — carb break down
            - lipase — fat break down
      - Biological break down
        - flora — Streptococcus Mutans — tooth decae
    - Chewed up food called a bolus
  - Esophagus
    - upper esophageal sphincter closes
    - Bolus moves down by peristalsis
    - lower (aka cardiac) esophageal sphincter opens to stomach
  - (Oro- & Laringieo-) Pharynx
    - Deglutition (Swallowing)
      - Step 1 - Voluntary - Tongue passes bolus to back of throat
      - Step 2 - Involuntary - Epiglottis covers glottis - bolus slides down Epiglottis
      - Step 3 - Involuntary - Esophageal Sphincter opens - bolus enters esophagus
  - Stomach
    - Bolus now called chyme
    - releases Gastrin hormone to itself to release
      - pepsin — protein breaks down
      - hydrochloric acid
        - keeps ph low for pepsin
        - denatures proteins
    - parts
      - cardia
      - fundus
      - pylorus
    - chyme leaves via pyloric sphincter
  - Small Intestines (absorption)
    - releases gastric inhibitory peptide to stomach to stop releasing gastrin
    - releases secretin to pancreas send neutralizing juices to raise ph
    - cholecystokinin tells gall bladder to send bile to eliminate saturated fat
    - enzymes
      - Trypsin — protein
      - Amylase — carbohydrates
      - Lipase — lipids
    - parts
      - duodenum
      - jejunum
      - ileum
    - chyme leaves through ileocecal sphincter
  - Large Intestine
    - Store and compact feces
    - Absorb water and electrolytes
    - parts
      - cecum — appendix
      - ascending colon
      - transverse colon
      - descending colon
      - sigmoid colon
      - rectum
      - internal anal sphincter
      - external anal sphincter
- Functions
  - Ingest — food intake
  - Digest — food break down
  - Absorb
- Accessory Organs
  - liver
  - pancreas
  - gall bladder
- sugar metabolism
  - insulin from pancreas to liver, tissues & blood to store glucose as glycogen
  - glucagon from pancreas to liver, tissues & blood to unstore sugar from glycogen
- chylomicronic activites
  - chylomicron carries fat to the liver
  - (VLDL & LDL) very low and low density lipoprotein carries fat from liver to tissues for storage
  - (HDL) high density lipoprotein carries fat from tissues to liver to be converted to energy