**DIGESTIVE SYSTEM – NUTRIENTS AND ORGANS**

**ORGANS CARBOHYDRATES PROTEINS LIPIDS (FATS)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Disaccharides | Starch |  |  |
| Mouth  Type of Digestion:  Mechanical or Chemical or both?  BOTH  Enzyme: amylase  Other: saliva | Mechanical only | Mechanical & chemical.  Product of chemical digestion in the mouth: DISACCHARIDES | Mechanical only | Mechanical only |
| Stomach  Type of digestion:  Enzyme:  Other: | Mechanical only | Mechanical only | Mechanical and Chemical  Enzyme: Pepsin  Other: HCl  Product: Smaller Proteins | Mechanical only |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Small Intestine  Type of digestion:  Both Mech & Chem  Enzymes:  Produced in Small Intestines:  Brush Border enzymes:  Dextrinase  Glucoamylase  Lactase  Sucrase  Maltase  Aminopeptidase  Carboxypeptidase  Dipeptidase  Enzymes Produced in Pancreas delivered to small intestine:  Pancreatic Amylase  Trypsin  Chymotrypsin  Carboxypepsidases  Lipase  Other: Bile – (not an enzyme) Produced in liver, delivered to small intestine. | Enzyme:  Lactase  Sucrase  Maltase  Product: Glucose | Enzyme:  Pancreatic Amylase  Dextrinase  Glucoamylase  Product: Glucose | Enzyme:  Trypsin  Chymotripsin  Carboxypeptidase  Peptidase  Product: Amino Acids | Enzyme:  Pancreatic lipase  Product: Fatty Acids & Glycerol |
| Small Intestine | Carbohydrates  Disaccharides | Carbohydrates  Starch | Proteins | Lipids (Fats) |

ACCESSORY ORGANS

ORGANS CARBOHYDRATES PROTEINS LIPIDS (FATS)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Disaccharides | Starch |  |  |
| Liver & Gall Bladder  Enzyme:  Other: Bile |  |  |  | Bile acts as an emulsifier (detergent) to break down fats into smaller fat droplets. |
| Pancreas  Enzymes:  Pancreatic Amylase  Trypsin  Chymotrypsin  Carboxypepsidases  Lipase | Enzyme:  Product: | Enzyme:  Pancreatic Amylase  Dextrinase  Glucoamylase  Product: Disaccharides | Enzyme:  Trypsin  Chymotripsin  Carboxypeptidase  Peptidase  Product: Amino Acids | Enzyme: Lipase  Breaks down fat droplets.  Product: Fatty Acids & Glycerol |