**Vocabulary: Digestive System**



**Vocabulary**

* Absorption – the taking in of one substance by another.
	+ In the *digestive system*, absorption refers to the passage of *nutrients* and water through the walls of the small and large intestines.
* Amino acid – an organic molecule containing a carboxyl and an amino group.
	+ Amino acids combine in long folded chains to form *proteins*.
	+ Proteins must be broken down into amino acids before they can be absorbed.
* Carbohydrate – organic molecules containing hydrogen, carbon, and oxygen.
	+ Carbohydrates are a major source of energy in the diet.
* Chemical digestion – chemical breakdown of nutrients through the action of *enzymes* and other substances.
* Chyme – a thick liquid of partially digested food produced by the stomach.
* Complex carbohydrate – a long carbohydrate molecule formed by chains of *sugars*.
	+ Complex carbohydrates are also called polysaccharides.
	+ Examples of complex carbohydrates are *starch*, glycogen, and cellulose (fiber).
* Digestion – the breakdown of food into simpler components that can be absorbed and used by the body.
* Digestive system – a group of organs that work together to break down and absorb nutrients from food, as well as eliminate the resulting wastes.
* Elimination – the process by which wastes are removed from the body.
* Enzyme – a molecule, usually a protein, which catalyzes a chemical reaction.
	+ Digestive enzymes break down nutrients into simpler chemicals.
* Fat – organic molecule consisting of three *fatty acids* attached to a glycerol “backbone.”



* + Fats are used to maintain healthy skin and hair, as insulation against cold weather, as an essential component of cells, and as a source of energy.
* Fatty acid – a component of a fat molecule, along with glycerol.
	+ Fats must be broken down into fatty acids and *monoglycerides* before absorption.
* Fiber – plant material in food that is difficult to digest.
	+ Fiber helps food move smoothly through the digestive system.
	+ Fiber is classified as *soluble* and *insoluble*.
	+ Soluble fiber is digested by bacteria in the large intestine. The resulting Calories are absorbed through the walls of the large intestine.
	+ Insoluble fiber passes through the digestive system without breaking down.
* Food calorie – a unit used to measure the energy in foods.
	+ The food calorie (Cal) is equal to 1,000 gram calories (cal).
	+ Food calories are known as kilocalories (kcal) in many parts of the world.
* Mechanical digestion – physical breakdown of foods.
	+ Examples of mechanical digestion include chewing in the mouth, churning in the stomach, and emulsification of fats by bile.
* Monoglyceride – a molecule that results from the breakdown of fats, consisting of a fatty acid attached to the glycerol backbone.
* Nutrient – a substance that is used by the body for energy, growth, or other processes essential to life.
* Peristalsis – wavelike muscle contractions that push food through the digestive system.
* Protein – an organic molecule consisting of a long chain of amino acids folded into a particular shape.
	+ Proteins are essential building blocks of muscles, skin, bone, hair, and most other body structures.
	+ Enzymes are proteins that help digest foods.
* Starch – a common complex carbohydrate used as a source of energy.
* Sugar – a simple carbohydrate that may be a *monosaccharide* or a *disaccharide*.
	+ Monosaccharides consist of single carbohydrate units.
		- Glucose and fructose are examples of monosaccharides.
	+ Disaccharides consist of two linked carbohydrate units.
		- Sucrose and lactose are examples of disaccharides.
* Villus – tiny, finger-like projection in the wall of the small intestine.
	+ Nutrients and water are absorbed through the thin walls of the villi.