

LS 1-7 Digestion And Cellular Respiration Quiz

Study Guide

Name: _____

Date _____ Hour _____

Important Vocabulary:

carbon

starches

cellular respiration

oxygen

respiratory system

mitochondria

glucose

digestive system

energy

amino acids

circulatory system

metabolism

proteins

enzymes

claims

Concepts:

- All living things contain carbon which is the key element found in molecules of earth organisms. Hydrogen, oxygen, nitrogen and phosphorus are also found in living organisms.
- Major food molecules, such as carbohydrates, proteins and fats, are broken down by the digestive system into smaller molecules for easier absorption into the circulatory system.
- The role of the digestive system is to break down large molecules into smaller molecules in order for these particles to fit into a cell. Chemicals called enzymes help break down these molecules. This process starts in the mouth and continues throughout the digestive system, which includes the esophagus, stomach, small and large intestines.
- Large protein molecules are broken down into amino acids in the stomach and are used in the cells to make new proteins for repair and growth.
- Large starch molecules are broken down into glucose which is used in cellular respiration to provide energy for the cells.
- All atoms and molecules needed by a person are obtained from outside the body through the digestive and respiratory systems. Atoms in these molecules may be rearranged by digestion or cell processes to make new molecules for growth, repair and energy that powers all of the body's life processes.
- During cellular respiration, oxygen and glucose molecules in the mitochondria go through a chemical reaction which produces energy for the body. Carbon dioxide and water molecules are produced as byproducts of this reaction.
- Scientific claims must be supported by data. Evidence in support of a claim must be relevant and explained through reasoning.

Review:

1. Key elements found in all living organisms are _____, _____, _____, and _____.
but, _____ is the key element that the other atoms bond to in a living organism.
2. Digestion of food produces molecules like proteins and starches which are broken down into _____ and _____.
3. Digestive _____ are used to help break down large food molecules in order for for them to fit into living cells.
4. The digestive system starts with the mouth, then continues down to the _____, _____, _____, and finally to the _____.
5. In the process of cellular _____, glucose and _____ combine in the _____ to release _____ for the cell. This reaction also gives off _____ and _____ as byproducts.
6. All molecules used by the body for energy, _____ or repair are from _____ the body.
7. Scientific _____ are supported by data, evidence and reasoning.