

Apes Flashcards PDF

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What is the primary function of the cell membrane?

The primary function of the cell membrane is to protect the cell from its surroundings and to control the movement of substances in and out of the cell.

What are the main components of the cell membrane?

The main components of the cell membrane are phospholipids, proteins, cholesterol, and carbohydrates.

What is the role of proteins in the cell membrane?

Proteins in the cell membrane serve various functions including transport, acting as channels or carriers, and serving as receptors for signaling.

What is osmosis?

Osmosis is the movement of water molecules through a selectively permeable membrane from an area of lower solute concentration to an area of higher solute concentration.

What is the difference between passive and active transport?

Passive transport does not require energy and moves substances down their concentration gradient, while active transport requires energy to move substances against their concentration gradient.

What is the function of the nucleus in a cell?

The nucleus functions as the control center of the cell, housing the cell's DNA and coordinating activities such as growth, metabolism, and reproduction.

What is the role of ribosomes in a cell?

Ribosomes are responsible for protein synthesis, translating messenger RNA (mRNA) into polypeptide chains.

What is the function of mitochondria?

The function of mitochondria is to produce energy in the form of adenosine triphosphate (ATP) through cellular respiration.

What is the purpose of the endoplasmic reticulum?

The endoplasmic reticulum is involved in the synthesis of proteins and lipids, and it also plays a role in the transport of materials within the cell.

What is the role of the Golgi apparatus?

The Golgi apparatus modifies, sorts, and packages proteins and lipids for secretion or delivery to other organelles.

What is the function of lysosomes?

Lysosomes contain digestive enzymes that break down waste materials and cellular debris.

What is the cytoskeleton?

The cytoskeleton is a network of fibers that provides structural support, helps maintain cell shape, and facilitates cell movement.

What is the function of chloroplasts?

Chloroplasts are responsible for photosynthesis, converting light energy into chemical energy stored in glucose.

What is the difference between prokaryotic and eukaryotic cells?

Prokaryotic cells lack a nucleus and membrane-bound organelles, while eukaryotic cells have a nucleus and membrane-bound organelles.

What is the role of the cell wall in plant cells?

The cell wall provides structural support and protection to plant cells, and it helps maintain cell shape.

What is the function of vacuoles in plant cells?

Vacuoles store nutrients, waste products, and help maintain turgor pressure in plant cells.