

Cell Transport and Cell Processes Quiz Study Guide-ANSWER KEY!

Quiz Date: Thursday February 10, 2011

Format of Quiz: Fill in, Short Answer

What to study: Notes, worksheets, textbook

Vocabulary to understand and be able to use: (write on here or make flashcards)

Diffusion-The movement of a substance from an area of high density to an area of lower density

Osmosis- The diffusion of water through a semi-permeable membrane

Passive Transport- The movement of materials through a cell membrane without the use of energy from the cell

Active Transport- The movement of materials through a cell membrane with the use of energy from the cell.

Semi-permeable membrane- Material that allows only certain substances to pass through.

Endocytosis-Process by which cell uses energy to form a vesicle around a molecule of a substance to carry it INTO the cell (enter)

Exocytosis-Process by which cell uses energy to form a vesicle around a molecule of a substance to carry it OUT of the cell (exit)

Homeostasis- The ability of an organism or cell to maintain a stable internal environment.

Cell Membrane- The flexible living outer layer of a cell that serves as a boundary between the cell and its environment. The cell membrane controls the movement of materials into and out of the cell.

Permeable-Allows materials to travel through

ATP-energy produced during respiration and used during active transport

You should be able to answer and explain the following questions

Cell Transport

- 1.) Why do materials move into and out of the cell?
 - Materials move into and out of the cell to maintain homeostasis and to provide the cell with its needs, and to get rid of wastes
- 2.) What materials move into and out of the cells?
 - Oxygen, water, and nutrients travel into the cell
 - Wastes, water, and carbon dioxide travel out of the cell
- 3.) Do materials move from high concentration to areas of low concentration, or the reverse?
 - During passive transport (diffusion and osmosis) the cell does not have to use energy for materials to move from areas of high concentration to areas of low concentration (think downhill)
 - During active transport (endocytosis and exocytosis) the cell has to use energy to move materials from areas of low concentration to areas of high concentration (think uphill)
- 4.) What is the difference between diffusion and osmosis?
 - diffusion is the movement of molecules of a material (oxygen, nutrients) from areas of high concentration to areas of low concentration
 - osmosis is the diffusion of WATER