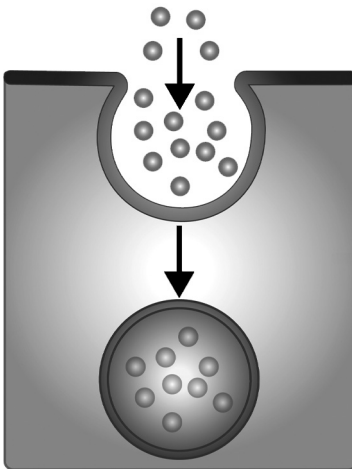
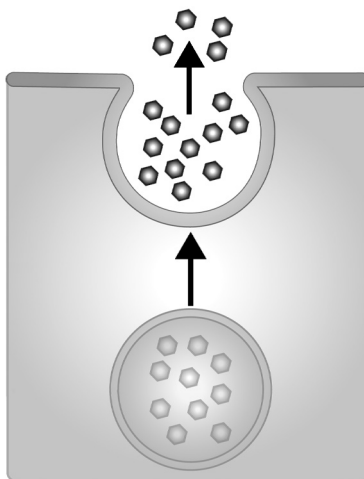


CHAPTER 4: "Cytosis" and Key Points

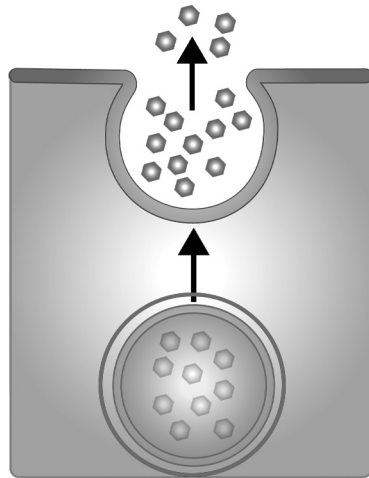
1. "Active transport" means that the cell must use _____ to move something across the cell membrane.
2. What is this process called? _____



3. What is this process called? _____



4. What is the circled structure called? _____



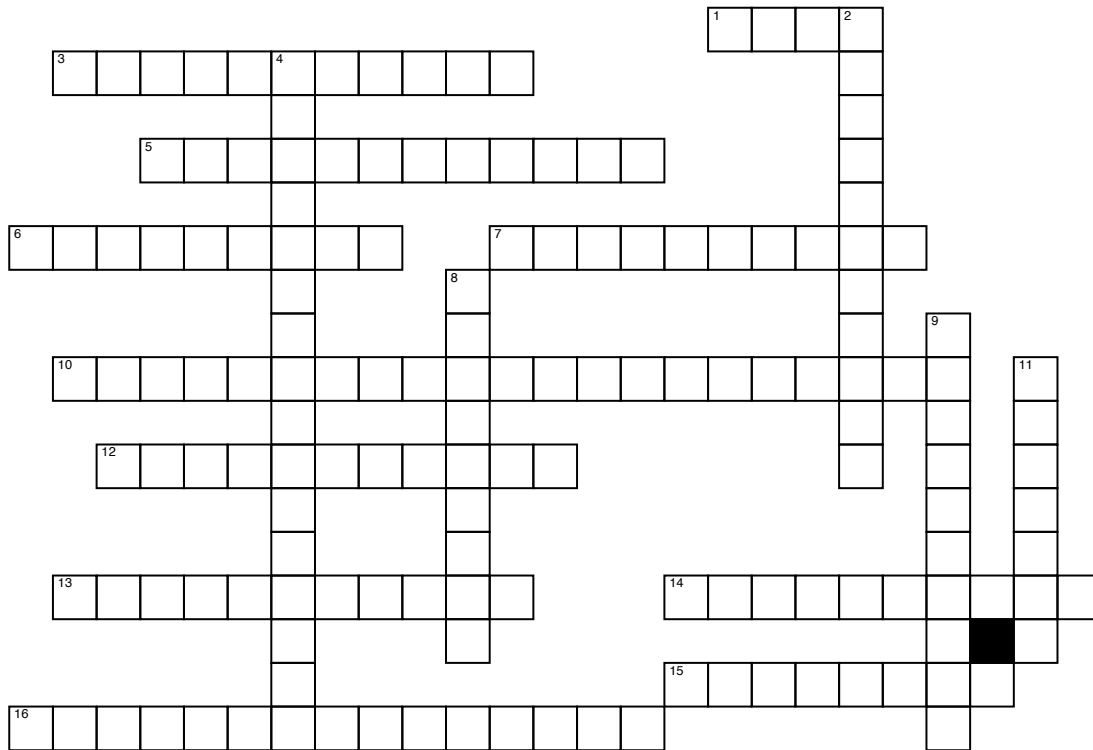
5. Choose the active transport processes.

- a. Primary active transport
- b. Diffusion
- c. Endocytosis
- d. Exocytosis
- e. Osmosis
- f. Facilitated diffusion

CROSSWORD

Finish the crossword puzzle below using the words provided.

- | | | | |
|--------------------------|-------------------------------|--------------------|---------------------|
| Equilibrium | Osmosis | Eukaryotic | Phospholipid |
| Passive Transport | Selective Permeability | Isotonic | Diffusion |
| Hypotonic | Prokaryotic | Life | Exocytosis |
| Hypertonic | Hydrophilic | Hydrophobic | |



ACROSS

- The function of the cell is the same as the properties of _____.
- The phospholipid tail is this.
- The main type of molecule in the cell membrane.
- The movement of a substance from an area of high concentration to an area of lower concentration.
- Using a vesicle to eject something out of the cell.
- Cell membranes only let certain things across.
- Cells with no nucleus and DNA in the nucleoid.
- The phospholipid head is this.
- Cells with a nucleus containing DNA.
- The concentration of water outside the cell is equal to the concentration of water inside the cell.

DOWN

- When this is established, diffusion and osmosis stop.
- Moving a substance across the cell membrane without using energy.
- When the concentration of water is higher outside the cell than inside the cell.
- When the concentration of water is higher inside the cell than outside the cell.
- Like diffusion for water.

WORD SEARCH

Find all the words in the word search below.

Cell Theory Cell Membrane Cytology Diffusion Endocytosis
Exocytosis Equilibrium Eukaryote Hypertonic Hypotonic
Organelle Prokaryote Osmosis Facilitated Diffusion
Active Transport Isotonic

L A H W D O E N D O C Y T O S I S B H A X Z K I P
C E E C B H Y P O T O N I C P M F A F W X Q J U Q
Y U G I E U F Q V C F K O V I P R O K A R Y O T E
T K D E F A C I L I T A T E D D I F F U S I O N Z
O A U J T C A Y I F Z G E C R O R G A N E L L E H
L R Q D K C E Z P F L N Z T X R I N S Y W P D L Q
O Y B Y C H Y P E R T O N I C A J X U X I Z I E U
G O Y Y U E C E L L M E M B R A N E U P D P V L C
Y T K H Z E L N Y L U G H Z V E X O C Y T O S I S
U E W L Q R Y L Y D N S I S O T O N I C R N F F V
I X U V M H H N T M W E J F E U G A G D X X U K J
Y K Q T N E P Q U H N R T Z R M P W J Q M E U V I
C E F G M C P Z Z D E H E K U I B D X T A B L B B
M M C Z R W B H T O J O I F E R M M Z Q H S A M A
D F M R L A C T I V E T R A N S P O R T N W K W O
C C Q R C S J M R G E V V Y S S G W O S M O S I S
T R E E Q U I L I B R I U M D I F F U S I O N Q J

DEFINITIONS

Active transport

The energy-requiring process of moving molecules across a membrane from areas of low concentration to areas of high concentration.

Cell membrane

The outer cell boundary of the cell made mainly from phospholipids that protects the components of the inside of a cell.

Cell theory

The theory that all organisms are composed of one or more cells.

Cell wall

An extra layer outside of the cell membrane that all prokaryotic and some eukaryotic cells have.

Cellulose

The carbohydrate that makes up the cell walls of plants.

Chitin

The carbohydrate that makes up the cell walls of fungi.

Cytology

The study of cells.

Cytoplasm

The jelly-like fluid enclosed within the interior of a cell.

Diffusion

The movement of molecules from an area where they are in high concentration to an area where they are in low concentration that occurs without using energy.

Endocytosis

The process by which large molecules and substances are surrounded by the cell membrane and moved into the cell.

Equilibrium

A condition created when the concentration of a substance is the same on both sides of a membrane.

Eukaryote

An organism with eukaryotic cell structure.

Eukaryotic cell

A cell that contains a nucleus and membrane-bound organelles, typical of animal, plant, fungus and protist cells.

Exocytosis

The process by which large molecules and substances are moved out of the cell using membrane-bound containers called vesicles.