Cell Transport Notes

Cell Membrane

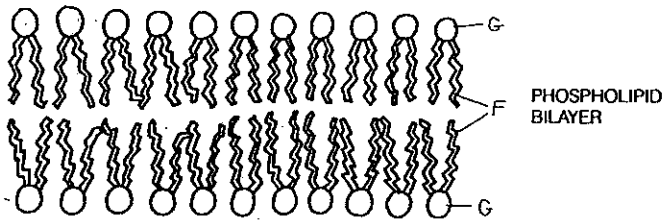
Function:

Structure:

Phospholipids:

Proteins:

PHOSPHOLIPID★
NONPOLAR (HYDROPHOBIC) PORTION$_F$
POLAR (HYDROPHILIC) PORTION$_G$



Types of Transport

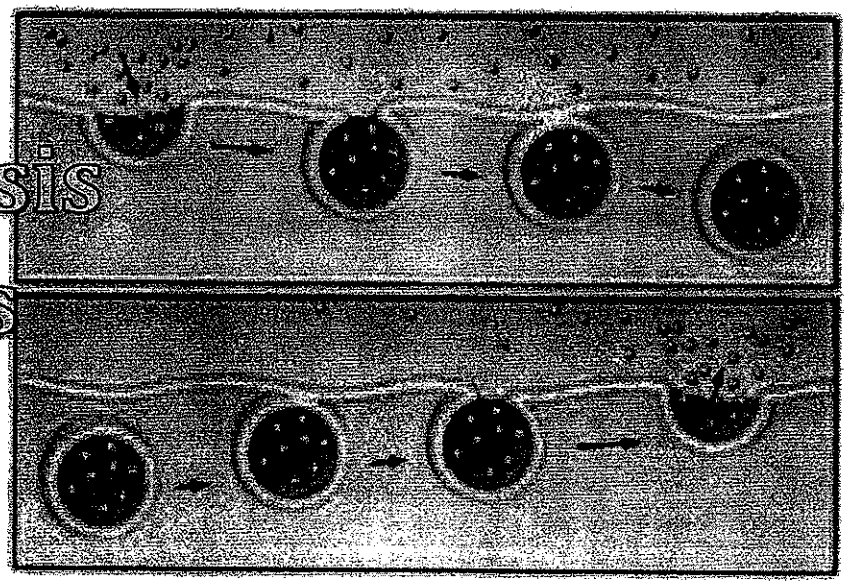
Passive:

Active:

Active Transport → vesicle transport

Endocytosis

Exocytosis

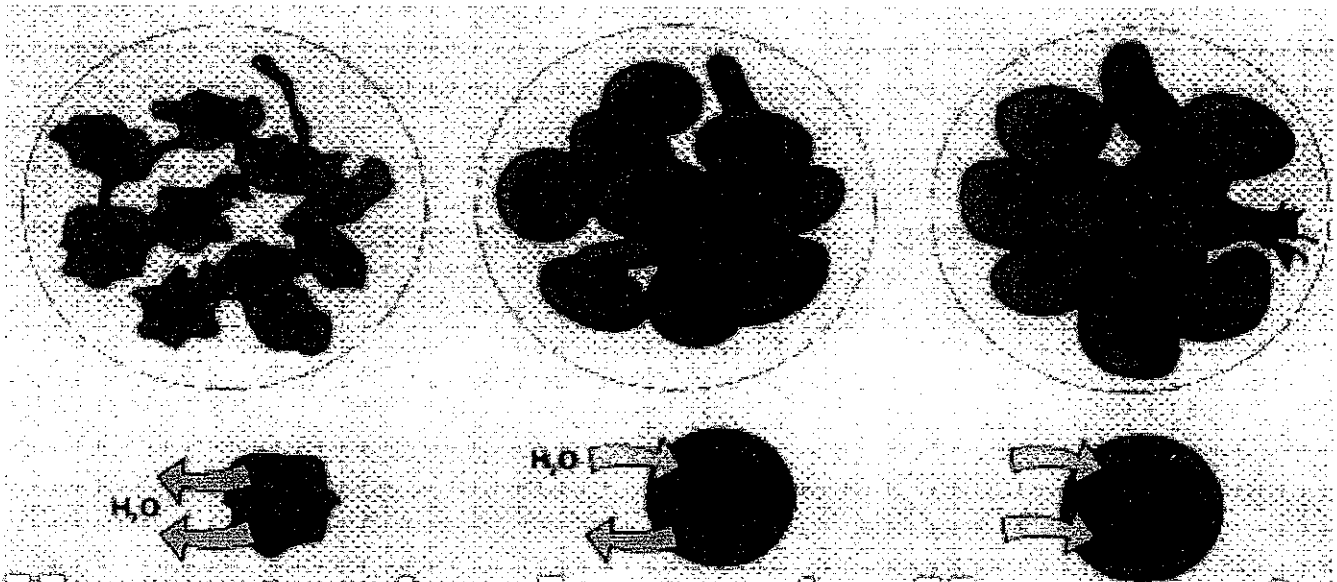


Passive Transport→ osmosis

Cell in its environment

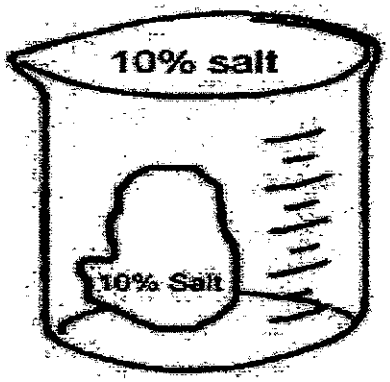
Three types of solutions cells can be in based on the concentration of dissolved molecules (solute) in the water (solvent) of the cells environment. Each situation causes a different flow direction of free water through the cell membrane (osmosis). The greater the difference in concentration (inside/outside of cell) the greater the flow rate/pressure.
Complete from Page 77 in Holt Biology Textbook.

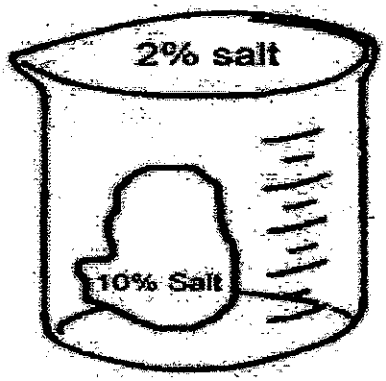
Type of solution (outside of cell)	Fluid outside of cell has.....		Water diffuses.....	Picture	Effect on cell....
Hypertonic					
Hypotonic					
Isotonic					

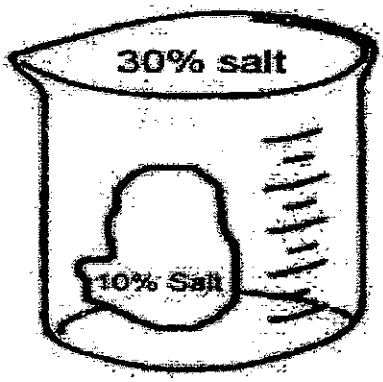


Hypertonic - Isotonic -Hypotonic

Draw arrows below to indicate which direction the water will flow.



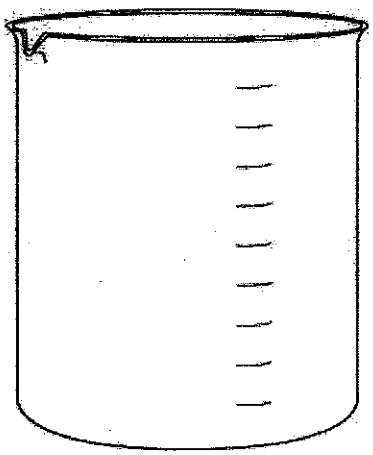


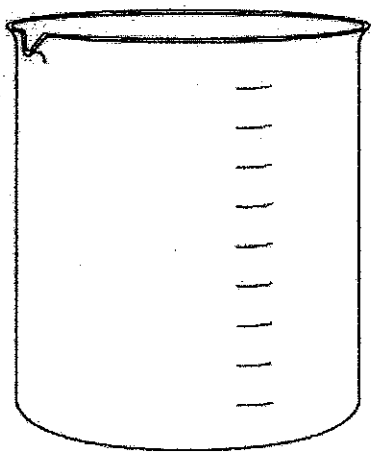


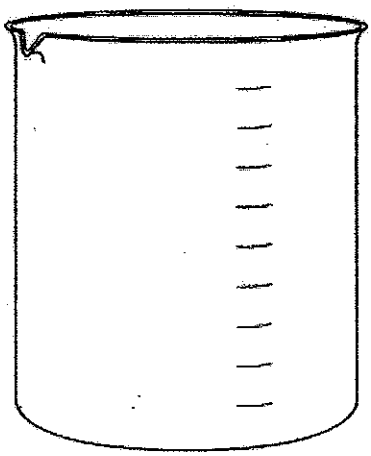
Isotonic – Hypotonic - Hypertonic

EGG Membrane obsevations

Draw and describe the effect on each egg. Label as isotonic, hypertonic, or hypotonic. Be sure to indicate what molecule was in the water if any. Use arrows to show the direction of flow of water.







Name / Date / Period

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Title of chapter or section

Objectives:

Describe

Explain

Outline

Transport Across Membranes

Passive Transport

Simple Diffusion

Osmosis

Facilitated Diffusion

Active Transport

Sodium-Potasium Pump

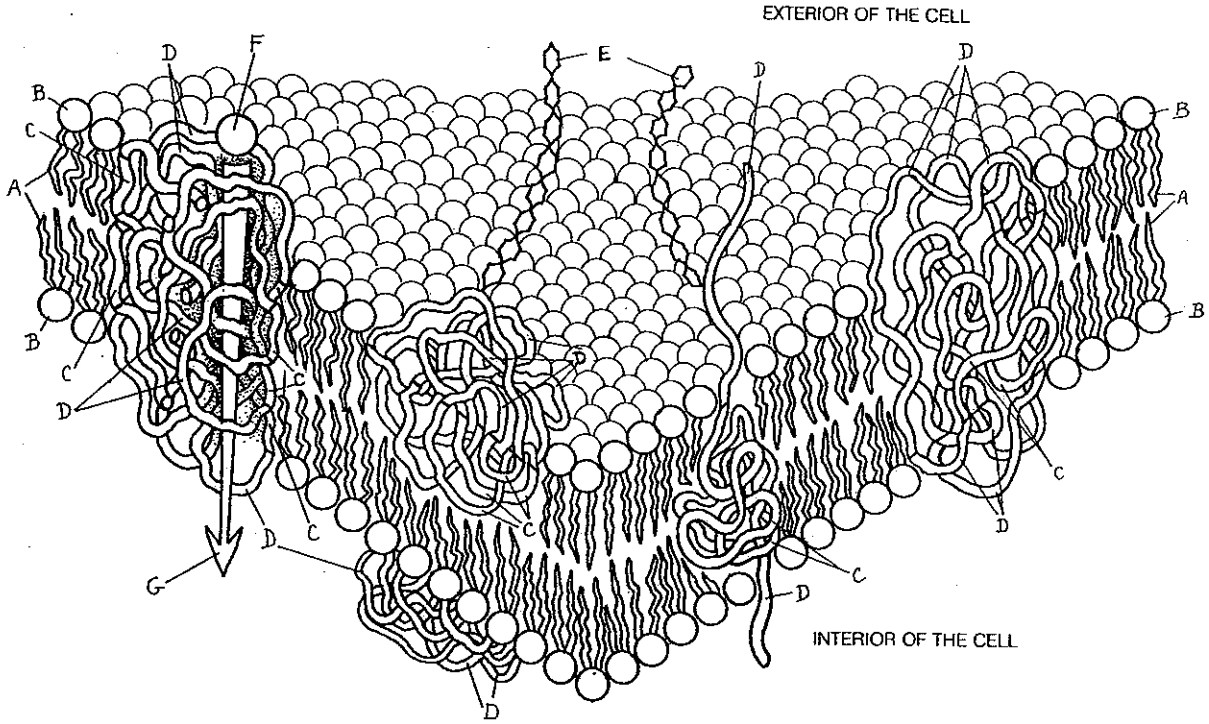
Vesicle Transport

Homeostasis and Cell Function

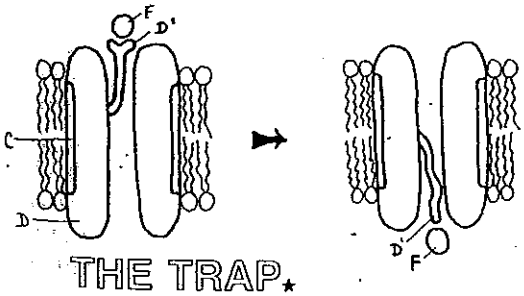
THE FLUID MOSAIC MODEL•

PHOSPHOLIPID BILAYER★
NONPOLAR (HYDROPHOBIC) PORTION$_A$
POLAR (HYDROPHILIC) PORTION$_B$

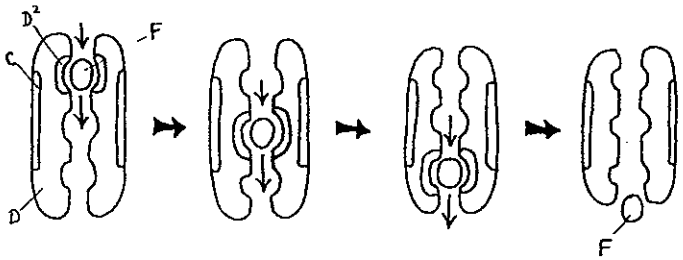
PROTEIN MOLECULE★
HYDROPHOBIC PORTION$_C$
HYDROPHILIC PORTION$_D$
GLYCOCALYX★
CARBOHYDRATE$_E$
ION/SMALL POLAR MOLECULE$_F$
DIFFUSION$_G$



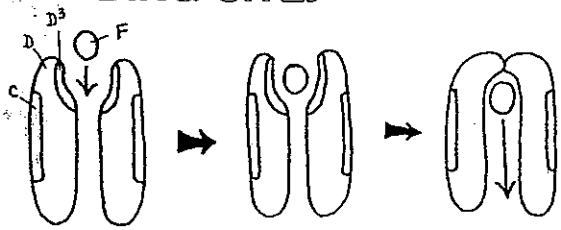
THE MOVABLE ARM★
MOVABLE ARM$_{D^1}$



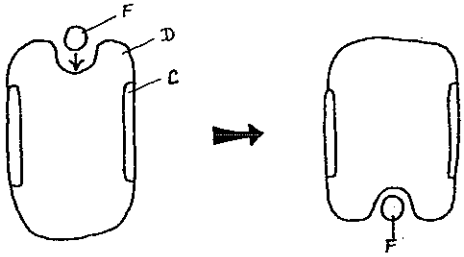
SEQUENTIAL BINDING SITES★
BINDING SITE$_{D^2}$



THE TRAP★
BINDING SITE$_{D^3}$

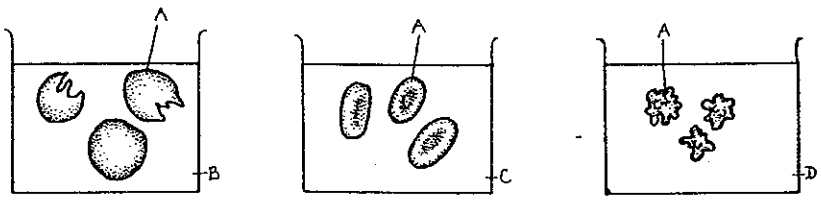


THE FLIPOVER★

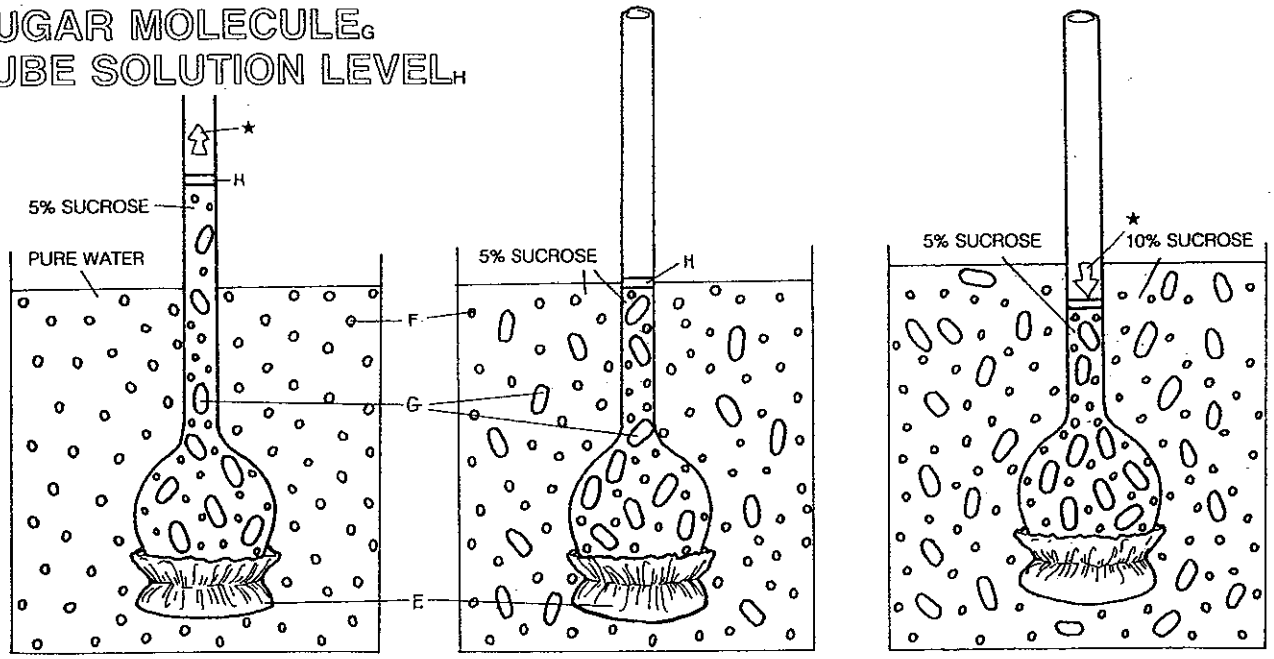


OSMOSIS.

ERYTHROCYTE$_A$
PURE WATER$_B$
0.85% SALT SOLUTION$_C$
2% SALT SOLUTION$_D$

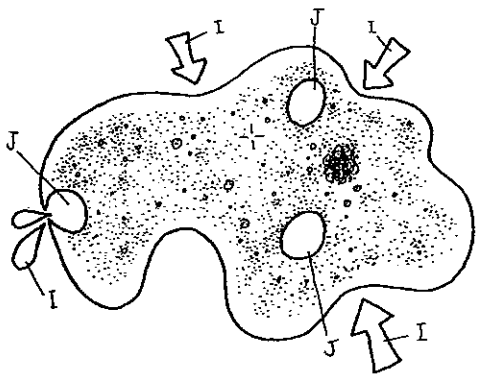


OSMOMETER★
SELECTIVELY PERMEABLE MEMBRANE$_E$
WATER MOLECULE$_F$
SUGAR MOLECULE$_G$
TUBE SOLUTION LEVEL$_H$



HYPOTONIC★ ISOTONIC★ HYPERTONIC★

AMOEBA★
WATER$_I$
CONTRACTILE VACUOLE$_J$



WILTING PLANT CELL★
CELL WALL$_K$
AIR SPACE$_L$
SHRUNKEN VACUOLE$_M$
NUCLEUS$_N$
CHLOROPLAST$_O$
HYALOPLASM$_P$