

Cell Transport Review

Describe the structure and arrangement of the cell membrane (what are its parts and how are they arranged?) You may draw a diagram and label if it helps.

A cytologist was studying cells' ability to move various substances across the membrane. Below is a table showing the concentration of each cell type and the solution it was placed in.

Cell group A 2% solute concentration 4% solute concentration Predict the effect on the cell.

Cell Group	Concentration of Solute within the cell	Concentration of Solute within the Solution	Predict the effect on the Cell placed in the solution
1	2%	4%	
2	4%	4%	
3	6%	4%	
4	8%	9%	
5	10%	9%	

Scenario 2: The scientist also studied a special group of cells and their ability to move potassium and sodium ions across the cell membrane. He is trying to determine whether or not the cell uses active transport, facilitated diffusion, or passive diffusion to move potassium ions across the membrane. The highlights of the investigation are listed below.

- The cells ATP requirements increase during potassium ion transport across the membrane.
- The cells have the ability to move potassium ions across the membrane even though the potassium ions concentration within the cell is already great.

The scientist concluded that the cell is moving the potassium ions across the membrane using passive diffusion. Based off of the data above, do you agree with his conclusion? Support your answer.