

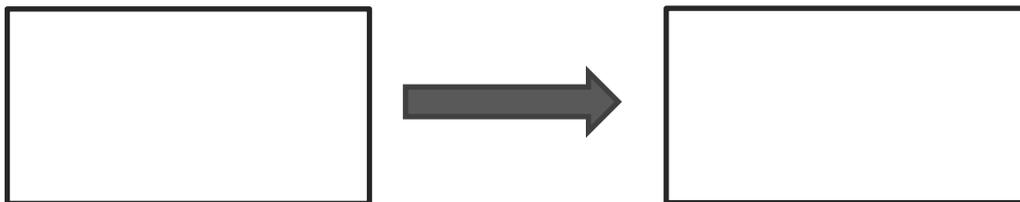
## Cell Transport Webquest

Link 1 – [Cell Transport Overview and Membranes](#)

1. What is meant by **cell transport**?
2. *Defend this statement:* living organisms must be able to transport materials in and out of the cell in order to live.
3. Whether or not a molecule can pass through the cell membrane is determined by.....
4. How are **smaller molecules** like O<sub>2</sub> and CO<sub>2</sub> able to pass through the openings of the cell membrane?

Link 2 – [Online Textbook Diffusion Tutorial](#)

1. If you have them, plug in your headphones. Otherwise, simply read the text and watch the animation. Describe what happens to moving molecules within a solution.
2. In terms of *molecules*, explain what happens to a sugar cube when it is placed into a beaker of water.
3. Define **diffusion**.
4. Using the arrow seen below, illustrate the diffusion of molecules from high concentration to low concentration.



5. What can affect the *rate of diffusion*?
6. **Predict:** what would happen if you drop the sugar cube into a beaker of hot water vs. a beaker of cold water.

Link 3 - [Perfume Animation](#)

1. What happened to the perfume molecules when you opened the lid on the box?
2. Use your notes: The molecules will continue to spread out until they reach a state of.....

Link 4 - [Facilitated Diffusion Tutorial](#)

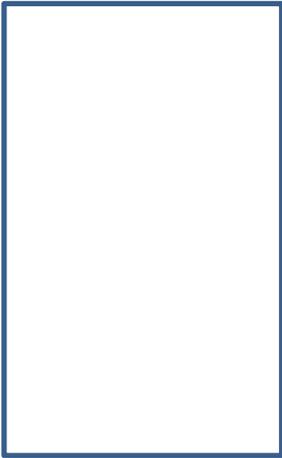
1. What is **facilitated diffusion**?
2. Explain what it means to say these protein channels are **selective** in what they allow into or out of the cell.
3. **Facilitated diffusion** involves the movement of particles ( with / against ) the concentration gradient.
4. In what ways are simple and facilitated diffusion the same?
5. How are they different?

Link 5 - [Online Textbook Osmosis Tutorial](#)

1. Most \_\_\_\_\_ molecules cannot freely cross the cell membrane. Is this true for water molecules?
2. Define osmosis.
3. Why did the water molecules move from the left to the right side? Be sure to include the word concentration in your answer.
4. The solution with ( higher / lower ) solutes is hypertonic. The solution with ( higher / lower ) solutes is hypotonic.

Link 6 - [Omosis Scenarios](#)

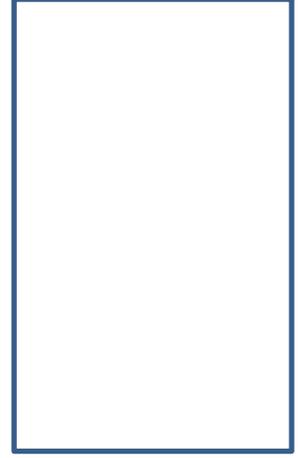
1. Scroll down to the section titled "osmosis." Draw and describe what happens to the cell in each beaker. Explain why this happens by giving the solution concentrations and discussing the movement of water.



**Beaker 1 Description:**



**Beaker 2 Description:**



**Beaker 3 Description:**

Link 7 - <http://bcs.whfreeman.com/thelifewire/content/chp05/0502002.html>

1. Define **active transport**.
2. In what type of situation would active transport take place?
3. Compare and contrast active transport and passive transport.

Link 8 - [Endocytosis and Exocytosis](#)

1. Draw and summarize the process of **endocytosis**.



1. Draw and summarize the process of **exocytosis**.

