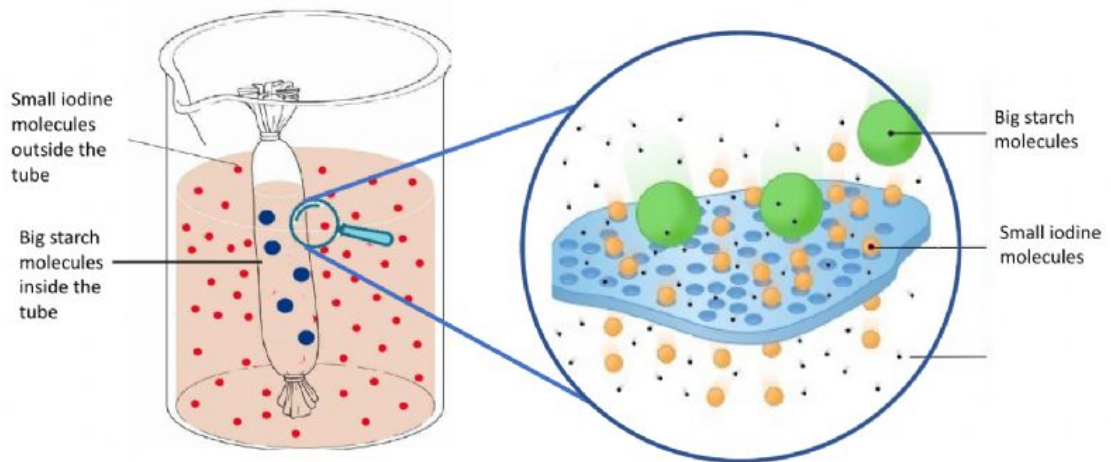


# Observe and Explain

Station  
# 2

First, we will observe the results of the previous experiment



LIVEWORKSHEETS

# Observe and Predict

Station  
# 2

Fill the following table with the information of the experiment.

	Color in the cup	Color in the tube	Iodine inside of the tube?
At the start of the experiment	Dark red / Brown	White	No
At the end of the experiment			

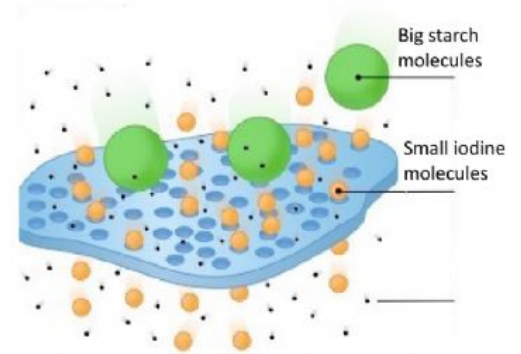
LIVEWORKSHEETS

# Station # 2

## Observe and Explain

Using the results obtained from the experiment answer:

1. Which molecules moved through the membrane?
  - a. The small iodine molecules moved inside the tube
  - b. Big starch molecules moved outside of the tube
2. Explain what is diffusion using the results from the experiment



LIVEWORKSHEETS

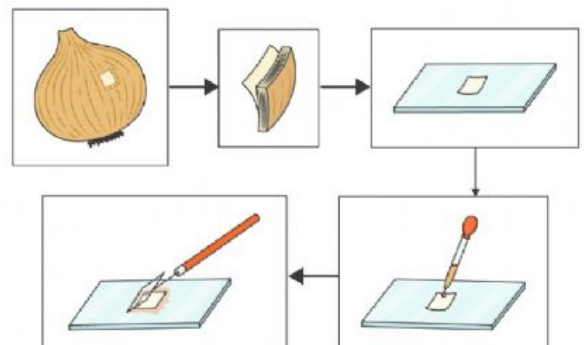
# Station # 3

## Illustrate Osmosis

The teacher will help you to set up a microscope slide of onion skin cells.

In this first slide you will see the onion cells naturally

1. Use your notebook to draw what you see



LIVEWORKSHEETS



# Illustrate Osmosis

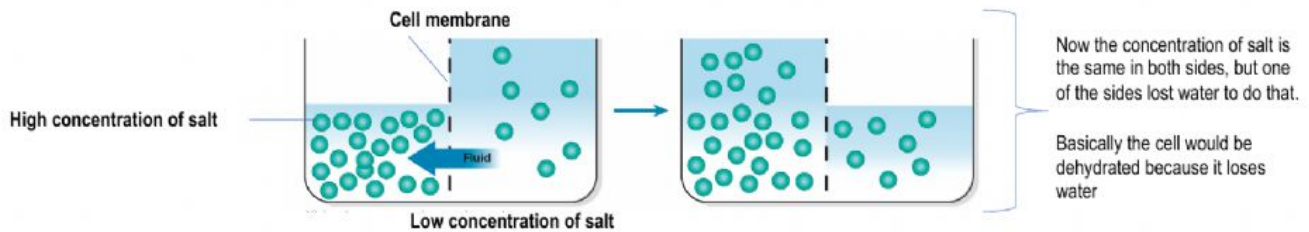
Now we will add a drop of salt water to the cell.



This means that the concentration of salt will be higher outside of the cell than inside of it.

The cell will try to balance the amount of water and salt inside and outside of it.

The cell will move water inside or outside depending where is more concentration of salt



**LIVEWORKSHEETS**



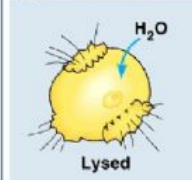
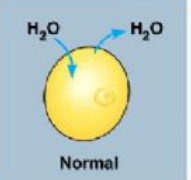

# Illustrate Osmosis

Now we will add a drop of salt water to the cell.

This means that the concentration of salt will be higher outside of the cell than inside of it.

**Use the picture about osmosis to predict what will happen?**

- Water will enter to the cell and the cell will burst
- The cell will stay the same
- Water will leave the cell causing it to shrivel (shrink)

Hypotonic solution	Isotonic solution	Hypertonic solution
		
Salt concentration of solution <u>lower than</u> inside the cell	Salt concentration of solution <u>the same as</u> inside the cell	Salt concentration of solution <u>higher than</u> inside the cell
Water enters the cell causing it to lyse (burst)	The amount of water in the cell stays the same	Water leaves the cell causing it to shrivel

**LIVEWORKSHEETS**



# Station #3

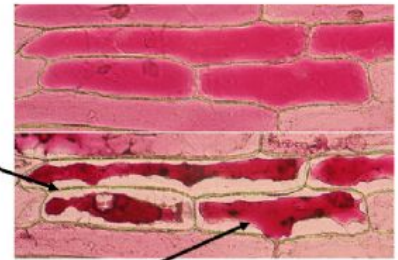
## Illustrate Osmosis

Observe the onion cells with salt water.

Use your notebook to draw the new observation.

Describe differences between the observations and how was the cell membrane responsible of that change?

Non-flexible cell wall



Flexible cell membrane