**DO NOW:**

1. The concentration of potassium in muscle cells is **maintained** at a higher concentration than outside of the cell. In order to keep this concentration, what type of transport must the cell undergo?
2. If a cell increases (swells) or decreases (shrivels) in volume, what type of transport must happen?
3. What are the building blocks of carbohydrates?
4. What are the building blocks of proteins?
5. What is the function of the nucleus?

**Selectively Permeable:**

* The cell membrane is selectively permeable because it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ molecules pass through the membrane
* Glucose, water, **\_\_\_\_\_\_,** CO2, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and other **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are permeable to the membrane
* Starch,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and other**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** molecules are NOT permeable to the membrane.
* They must be **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, or broken down.

**STATE LAB- Diffusion through the Membrane:**

* The state lab was all about **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**!!!!!!
* We used an “artificial cell” to observe the movement of glucose, starch, and starch \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* An indicator is used to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**of a chemical substance.
* Starch indicator (**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**) is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. It will turn **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**in the presence of starch.
* The beaker was **LEFT ALONE** for 20 minutes



**RESULTS:**

After 20 minutes, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* The bag turning black told us that starch indicator (iodine) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** the cell.
* The water staying amber told us that starch **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** move out of the cell.

But what about glucose?...

* In order to determine if glucose moved, a glucose \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ test had to be performed.
* Glucose indicator is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and IT MUST BE **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* Glucose indicator will turn **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (traffic light colors) if glucose is present.
* A sample of the amber water was taken from the beaker and heated with glucose indicator.
* The test was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Glucose WAS present in the beaker.



**Conclusion of the Experiment:**

* Glucose and starch indicator were \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the dialysis tube membrane.
* Starch was \_\_\_\_\_\_\_\_\_ permeable to the membrane.