**CELL HOMEOSTASIS VIRUTAL LAB Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Click “START”.
2. What is the question you will trying to answer with this virtual lab?
3. What part of the experiment will represent the cell? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What part of the experiment will represent the cell’s external environment?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Summarize the steps you completed to create the five different sugar solutions.
2. Sketch the beakers, including the labels, in the space below before clicking “Continue”.
3. What is the concentration of the sugar solution in dialysis tubes B-E? \_\_\_\_\_\_
4. What is the concentration of the sugar solution in dialysis tube A? \_\_\_\_\_\_
5. Record the initial mass of each dialysis tube in the data table below.
6. Make a prediction about what you think will happen to the weight of the dialysis tubes in the diagrams below. Use arrows to show how you think the water will move between the environment and the “cell”.

**E**

15%

10%

**B**

0%

10%

1. Finish your data table by recording the final mass of each dialysis tube and calculating the difference in mass after 24 hours.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dialysis Tube** | **Initial Mass (g)** | **Final Mass (g)** | **Change in mass (g)**  **(final – initial = change)** | **Gain or loss?** |
| **A** |  |  |  |  |
| **B** |  |  |  |  |
| **C** |  |  |  |  |
| **D** |  |  |  |  |
| **E** |  |  |  |  |

1. Was your prediction for dialysis tube B correct? \_\_\_\_\_\_\_\_\_\_\_\_\_
   1. Use osmosis to explain the change in weight for dialysis tube B:
2. Was your prediction for dialysis tube E correct? \_\_\_\_\_\_\_\_\_\_\_\_\_
   1. Use osmosis to explain the change in weight for dialysis tube E:
3. Record your answers to the post-activity quiz here: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_