

Cell Homeostasis Virtual Lab Date: \_\_\_\_\_ Name: \_\_\_\_\_

<https://video.esc4.net/video/assets/Science/Biology/Gateway%20Resources/cell%20homeostasis%20virtual%20lab%20-%20activity/index.html>

1. The beakers will contain different \_\_\_\_\_ of dissolved sugar. They will represent the cells'

\_\_\_\_\_ environment.

2. The dialysis tubing represents a cell. The cells will all contain the \_\_\_\_\_ concentration of sugar.

3. Click and drag the beakers to the table to fill them with water as directed. (FYI – if you virtually drop the beaker on the floor instead of placing it on the table, you can't get them back!)

4. Complete the table as you do the experiment.

Beaker	% sugar solution	Dialysis tube	% sugar solution	Initial mass	Final mass	Change in concentration (Final Mass-Initial Mass) [show calculations]
A	control	A				
B		B				
C		C				
D		D				
E		E				

Graph the change in concentration from the table above:


5. Which cells (dialysis tubes) lost water? Which term describes the solution they were in – hypertonic, hypotonic, or isotonic?

6. Which cells (dialysis tubes) took in water? Which term describes the solution they were in – hypertonic, hypotonic, or isotonic?

7. Which cells remained the same? Which term describes the solution they were in – hypertonic, hypotonic, or isotonic?