# Station #1

Three days ago, these eggs were soaked in acetic acid, or vinegar, to remove the shells. The beaker labeled “Control” is an egg that has remained in vinegar. The beaker labeled “Experimental- 1” is an egg that was placed in water after the shell was removed. The beaker labeled “Experimental- 2” is an egg that was placed in honey after the shell was removed. Each beaker has been left covered and undisturbed.

# Station #2

Each beaker contains a bag made from dialysis tubing. As used in kidney dialysis machines, this tubing is a synthetic material that facilities the removal or exchange of small molecules. In Beaker A, a white starch/water solution was added to the bag. A brownish red iodine/water solution was added to the beaker. In Beaker B, a brownish red iodine/water solution was added to the bag. A white starch/water solution was added to the beaker.

# Station #3

Staying alive requires a flow of materials into and out of cells. The movement of these materials is regulated by the cell membrane. Nutrients to build new cellular parts or to fuel cellular processes must continuously enter the cell, whereas waste materials as well as other products are continuously being expelled. The structure of a cell membrane allows for it to regulate this entry and exit, as well as maintain the cell's homeostasis, or balance.

This is a model to illustrate a distinct characteristic of a cell membrane. Hold the membrane horizontally and carefully drop each item onto the membrane. Please note, do not force any objects through the membrane.