

# Diffusion Lab

## **Purpose:**

In this lab, students can see firsthand the diffusion of a substance across a semipermeable membrane.

## **Materials:**

- tincture of iodine
- cornstarch/water solution
- plastic sandwich bags or dialysis tubing
- beakers or plastic cups

## **Procedure:**

Fill beaker about halfway and put about ten drops of iodine. Put about a teaspoon of starch and about 50 ml of water in baggie and tie. (Actual measurements can vary) Put the baggie in the beaker and wait. In about 15 minutes the solution in the baggie will turn purple as a result of the iodine diffusing through the bag. You may want to discuss with students beforehand that iodine is an indicator for starch.

## **Questions:**

1. The plastic bag is permeable to which substance?
2. Why did the iodine enter the bag?
3. Why didn't the starch enter the beaker?
4. How is the plastic bag like the cell membrane?