

## Diffusion Lab

**Introduction:** In this lab you will observe the diffusion of a substance across a semi permeable membrane. Iodine is a known indicator for starch. An indicator is a substance that changes color in the presence of the substance it indicates. Watch as your teacher demonstrates how iodine changes in the presence of starch.

**Prelab Observations:** Describe what happened when iodine came into contact with starch.

### Procedure

1. Fill a plastic baggie with a teaspoon of corn starch and a half a cup of water tie bag. (This may already have been done for you)
2. Fill a beaker halfway with water and add ten drops of iodine.
3. Place the baggie in the cup so that the cornstarch mixture is submerged in the iodine water mixture.
4. Wait fifteen minutes and record your observations in the data table
5. While you are waiting, answer the questions.

### Questions:

1. Define diffusion.
2. Define osmosis
3. What is the main difference between osmosis and diffusion
4. Why is iodine called an indicator ?
5. Molecules tend to move from areas of \_\_\_\_\_ concentration to areas of \_\_\_\_\_ concentration.

### What's in the Bag?

We're going to think about concentrations now, which substances are more or less concentrated depends on which one has the most stuff in it.

1. Is the baggie or beaker more concentrated in starch?
2. Is the baggie or beaker more concentrated in iodine?
3. Iodine solution: is the baggie or the beaker hypertonic?
4. Starch solution: is the baggie or the beaker hypertonic?
5. Which one is hypotonic in relation to starch, baggie or beaker?