Osmosis Lab Introduction

The purpose of this lab is to visualise the effects of osmosis and diffusion through potatoes. It will also show how cells react to different types of solutions, such as hypertonic and hypotonic.

The solvent is the water, and the solute is the sugar. The water will be dissolving the sugar inside and outside the potato, trying to evenly disperse itself. Potatoes are selectively permeable, kind of like cells. This means that only certain things can go through it.

After the potato absorbs the water, we will be placing it in hypertonic and hypotonic solutions. When a solution is hypotonic, it is lacking in a certain substance. When a solution is hypertonic, it is the opposite. In a hypotonic solution, water will leave the cell. The way this affects the potato is that In a hypertonic, water will flow into the cell. This happens because cells want to be isotonic, which is where there is equilibrium inside and outside cell.

In conclusion, the purpose of this lab is to visualise the effects of osmosis and diffusion through potatoes. It shows the way cells absorb and lose water and other simple materials and the effect it has on the size and mass of the cell.