Air Pressure Experiment

Air is all around us, and it plays a very important role in shaping the world that we live in. The way that air does this is by something known as **air pressure**, or the pressure inside Earth's atmosphere. It's why kites can fly and our coastlines are at the elevations they are! Air pressure is constantly pushing on everything, and when the air pressure changes the things that it is pushing on will either feel a stronger or weaker push. Today in our experiment we're going to observe what happens when we decrease the air pressure inside of a system. In order to do this we're going to need a few things:



- Dish/plate
- Glass
- Candle that will fit within the glass
- Matches/Lighter
- Food Coloring (Optional)
- Water

First, let's begin by pouring water into our dish. If you are using food coloring, add it to the water in the dish at this point.



Next, place the candle in the center of the dish and light it using either matches or a lighter.



Gently place the glass upside down over the candle so that the candle is within the glass with the rim of the glass resting on the surface of the water.



Observe what happens to the water level inside the glass. What's going on? This happens because after the candle's flame uses the available oxygen in the glass, the air inside the glass cools and the air pressure decreases. This causes the water level within the glass to change in order to equalize the pressure with the atmosphere around the glass!