



## What you will need:

- 2 small glass jars
- ~2 cups of hot water
- ~2 cups of cold water
- 2 contrasting colors of food coloring (ex: red and blue)
- A laminated card
- Gloves

# Density of water with hot/cold water

## Overview and Objective

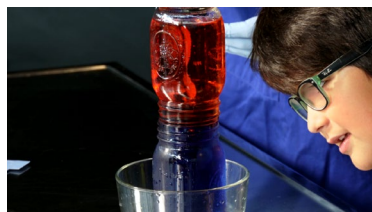
A simple way to think of density is how much a substance weighs for the amount of space it takes up, or it's volume. For example, a cup of hot water and a cup of cold water they do not have the same weight even though they take up the same space or volume.

In this experiment, we will be able to visualize the difference in density between hot and cold water.

## Process:

*\*This experiment can be a bit messy, you may want to try it outside or inside a large sink\*.*

1. Fill one jar with hot water and a couple drops of food coloring (ex: red).
2. Fill the other jar with cold water and a couple drops of a contrasting food coloring color (ex: blue).
3. Place the laminated card over the jar filled with hot water. Carefully flip it over and place it on top of the jar with cold water.
4. Once the jars are perfectly balanced, remove the card so the jar openings touch each other.
5. The two colors of water should remain separate!



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## Observations:

What happens if you carefully flip the jars over. Do the colors stay separate or mix?