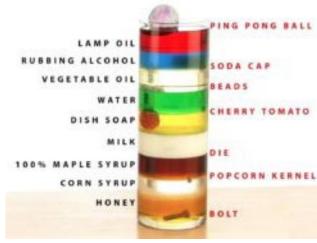
## UNDERSTANDING DENSITY

## **Materials:**

- Empty Plastic Bottle with Cap
- Water
- Cooking Oil
- Syrup or Honey
- Food Coloring (optional)



## Procedure:

- Fill the bottle with equal amounts of honey/syrup and oil. Then fill the remainder of the bottle with the water (you can add food coloring after the water, if desired) and then close the cap tightly.
- 2. Turn the bottle upside down and observe what is happening between the oil, syrup/honey, and water.

## What is going on?

Density is a measurement that compares the amount of matter an object has to its volume. An object with a lot of matter in a certain amount of volume has high density. An object with a little matter in the same amount of volume has a low density. When the bottle is moving upside down, the water will be at the bottom. Quickly, the water will settle down and the oil will go up. In a reservoir, gas will be at the top, oil will be under the gas, and water will be under the oil. This is because of the difference in density.

