Name _____ Date _____

Density Lab

Sink or Float

Preparing the Cups

1. Gather three small paper/plastic cups.
2. Label one cup as water, one cup as oil, and one cup as syrup.
3. Measure and record the mass of each cup.
   Mass of water cup: _____g Mass of oil cup: _____g Mass of syrup cup _____g
4. Measure and pour 50 ml of water into each cup.
5. Use a marker to draw a line at top of the water line.
6. Pour the water out of the oil and syrup cup but leave the water in the water cup.

Density of Water

1. Measure the mass of the water cup with the water in the cup: _____g
2. Calculate the mass of the water minus the mass of the cup using subtraction:

   _____g _____g _____g
   Mass of cup and Water - Mass of cup without Water = Mass of Water

3. Calculate the density of the water by dividing the mass of the water by its volume:

   _____g ÷ _____ ml = _____ g/ml
   Mass of Water Volume of Water **Density of Water**

Density of Oil

1. Pour oil into the cup marked "Oil" until it reaches the 50 ml mark.
2. Measure the mass of the oil cup with the oil in the cup: _____ g
3. Calculate the mass of the oil minus the mass of the cup using subtraction:

   _____g _____g _____g
   Mass of cup with Oil - Mass of cup without Oil = Mass of Oil

4. Calculate the density of the oil by dividing the mass of the oil by its volume:

   _____g ÷ _____ ml = _____ g/ml
   Mass of Oil Volume of Oil **Density of Oil**

Density of Syrup

5. Pour Syrup into the cup marked "Syrup" until it reaches the 50 ml mark.
6. Measure the mass of the syrup cup with the syrup in the cup: _____ g
7. Calculate the mass of the syrup minus the mass of the cup using subtraction:

   _____g _____g _____g
   Mass of cup with Syrup - Mass of cup without Syrup = Mass of Syrup

8. Calculate the density of the oil by dividing the mass of the syrup by its volume:

   _____g ÷ _____ ml = _____ g/ml
   Mass of syrup Volume of Syrup **Density of Syrup**

Sink or Float

1. Predict whether syrup would float or sink on water: _____

2. Predict whether oil would float or sink on water: _____

Density Cup

1. Pour all three cups of liquids into the larger clear cup.
2. Draw a diagram representing the cup containing the three fluids.
3. Label the diagram with the terms: syrup, water, and oil.
4. Write the density of each fluid near the labels. (Don't forget to include the unit)