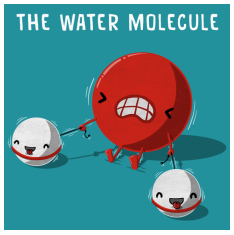
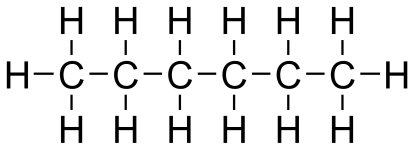


Name: _____ Number: _____

Polarity Lab: Water vs. Hexane

Pre-Lab:

1. Fill out the following table:

Compound	Lewis Structure	Polarity of Molecule	Strongest IMF present
Water (H_2O)			
Hexane (C_6H_{14})			
Iodine (I_2)			

2. Predict what you think will happen when Water, Hexane, Iodine, and Copper (II) sulfate are combined into a test tube. (Hint: Like dissolves like.)

Procedure:

1. Obtain a test tube and fill ⅓ of the test tube with water.
2. Fill the test tube about ⅔ with hexane. Cap with thumb and shake for 30 seconds. Let sit for 30 seconds. **Record observations on the back of this sheet.**
3. Using a scoopula, add copper (II) sulfate to the test tube. Cap with thumb and shake for 10 seconds. Let sit for 30 seconds. Record observations.
4. Using a wood splint, add a few small pieces of iodine (I_2). Cap with thumb and shake for 10 seconds. Let sit for 30 seconds. **Record observations on the back of this sheet.**

Data table for Observations:

Post-Lab Questions:

1. Explain what happened when water and hexane were added to the test tube. Why did this happen?

2. Explain what happened to the copper (II) sulfate (Hint: This is an ionic compound) and what type of molecule can an ionic compound dissolve in to.

3. Explain what happened to the iodine (I_2) using your knowledge of polarity. Why did this occur?