

Name: _____

Locker Number: _____

Experiment 2

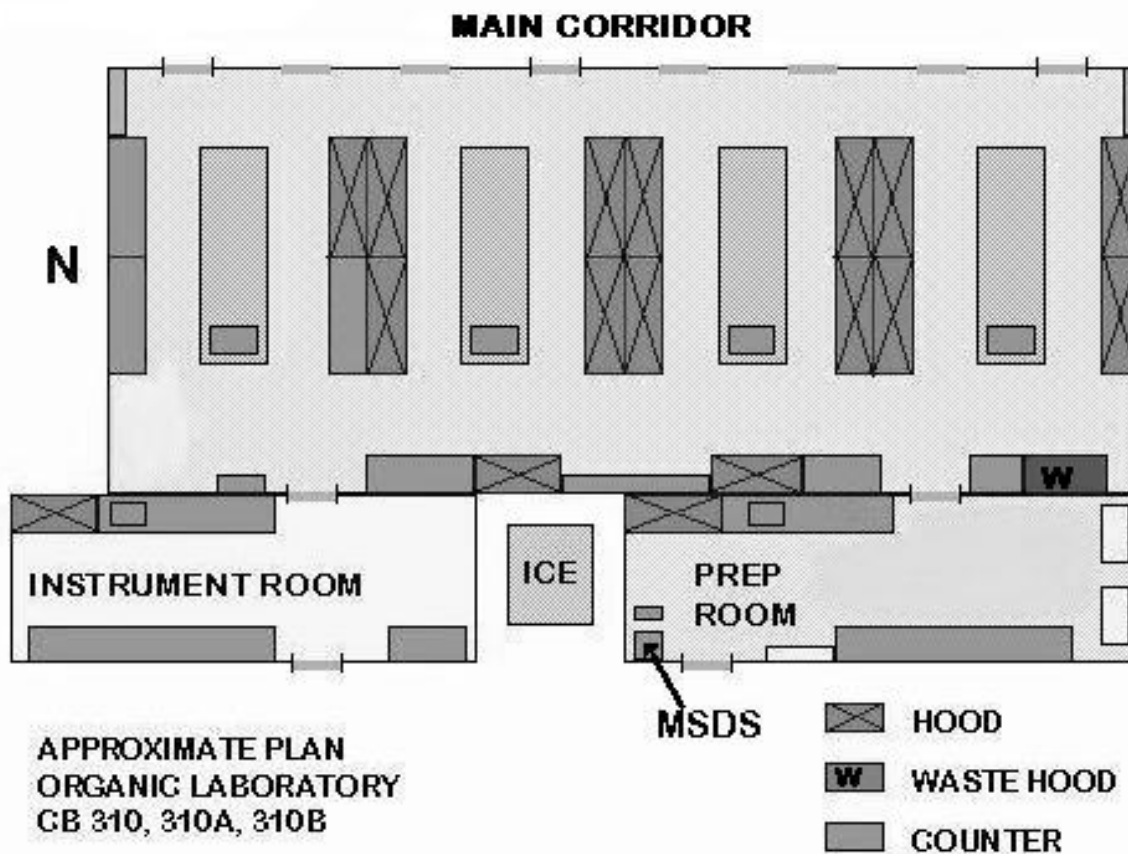
SOLUBILITY

Pre-Lab Exercise

1. On the plan of the organic laboratory included here, indicate where each of the items listed should be found. Use the letter corresponding to the item to label directly on the plan.

A	Where is benzophenone stored?	B	Where is methanol stored?	C	Where should you find the 1.0 <i>M</i> Sodium hydroxide?
D	Where do you dispose of organic solute + water solutions?	E	Where do you dispose of organic solute + hexane solutions?	F	Where do you dispose of any solution containing CH ₂ Cl ₂ ?
G	Where would you find the filter paper?				

2. State the common generalization that chemists use to predict the solubility of an organic compound.
3. a) Predict whether or not benzoic acid will be soluble in 1.0 *M* NaOH or in 1.0 *M* HCl (two answers).
- b) Predict whether or not ethyl 4-aminobenzoate will be soluble in 1.0 *M* NaOH or in 1.0 *M* HCl (two answers).



4. Using *The Merck Index*, the *CRC Handbook of Chemistry and Physics*, or other chemistry handbook, determine whether or not
- water and diethyl ether are miscible.
 - acetone and water are miscible.
 - acetone and diethyl ether are miscible.

NOTE: Depending on the handbook that you use, you may find *diethyl ether* listed under either "ether" or "ethyl ether," and *acetone* listed under "2-propanone."

5. Suggest 3 reasons why methylene chloride (dichloromethane, CH_2Cl_2) is not a preferred solvent in a green chemistry lab.