

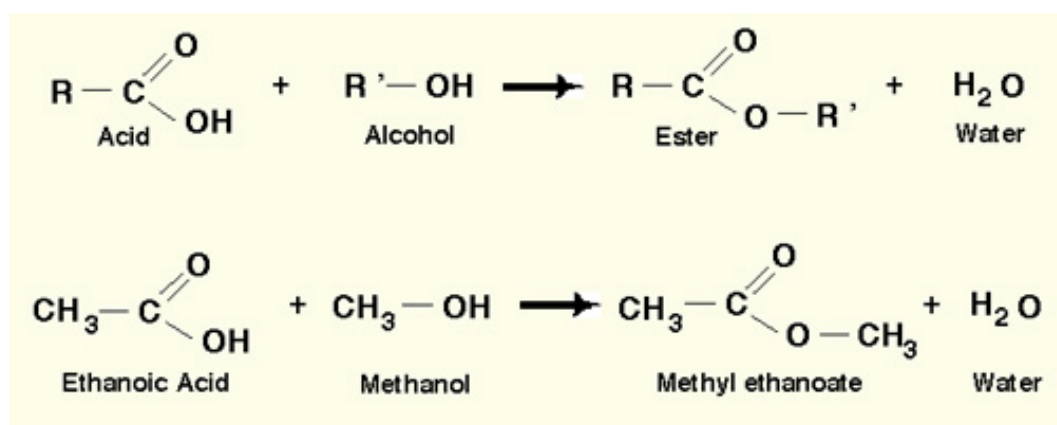
# Lab: Organic Esters

Name \_\_\_\_\_ Per \_\_\_\_\_

**Purpose:** To make five esters, name them, and write their equations.

**An ester is a compound formed by the reaction of an organic acid with an alcohol.**

**Acid + Alcohol  $\rightarrow$  Ester + Water**



**Procedure: GOGS ON!**

Make simultaneously five esters in a boiling water bath (250 ml beaker only 1/2 full!).

Into a 150 mm T.T. measure **1 ml of an organic acid + 1 ml of an alcohol**. Then add **1 ml of 18 M H<sub>2</sub>SO<sub>4</sub>** to shift the equilibrium by removing the H<sub>2</sub>O. **CAREFUL!** The Sulfuric acid is in the Hood.

1. Place the test tube into the hot water bath. 2. Repeat the above for the other four esters. 3. Allow to cook for 10 minutes.

Note the color and odor changes. **Use caution!**

**Data table:**

	Acid name	Alcohol name	Ester name	Color	Odor
1	Ethanoic acid	Ethanol			
2	Ethanoic acid	Pentanol (iso-amynol)			
3	Ethanoic acid	Octanol			
4	Ethanoic acid	Butanol			
5	Salicylic acid	Methanol			

**Write your equations and names here:**

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**Critique:**