

INTRODUCTORY ORGANIC AND BIOCHEMISTRY LAB

EXPLORING FUNCTIONAL GROUPS

The purpose of this experiment is to introduce various important functional groups of organic molecules. In addition, we will practice drawing Lewis diagrams, condensed formulas, molecular formulas, and experiment with nomenclature.

Part One

Each lab team will be given two or more line-angle structures. Your first task is to make a molecular model, using the model kits provided, of each of your structures.

Taking the model for each of your molecules, you will **1.)** draw the Lewis diagram, **2.)** circle and identify the functional group(s), **3.)** draw the condensed structure, **4.)** write the molecular formula, **5.)** draw the carbon skeleton, and **6.)** try to name it using your textbook as a reference.

Part Two

After you have completed Part One with your molecules, exchange **models** with another group and repeat steps 1-6 (draw the Lewis, circle and id functional groups, draw condensed, write molecular formula, draw the carbon skeleton, and try to name it). **In addition try to draw its line-angle formula.**

Part Three

Repeat this process until you have analyzed all of the models made by students in your lab section.