

Model Kits Activity

A. Building Functional Groups

* Build the following functional groups using the kits provided (show the teacher as you complete each): you may use the references pages on functional groups given in class (or page 26 in textbook)

Hydroxyl

Carbonyl

Carboxyl

Amino

Phosphate

1. What is the primary purpose of the functional groups found in organic molecules?
2. What makes a functional group “acidic”?

B. Dehydration synthesis and Hydrolysis

*Build a 2 carbon hydrocarbon and a 3 carbon hydrocarbon WITH a hydroxyl group on the end. Have them undergo a **dehydration synthesis reaction**. Be sure to *build the resulting water molecule* once the synthesis is complete.

*Have your new 5 carbon hydrocarbon now undergo hydrolysis. Be sure to **use** your newly formed water molecule in the process. Show the teacher

3. When would you expect a cell to use a hydrolysis reaction? Give an example.