

Name: _____

Blk: _____ Date: _____

Chemistry 11
Organic Chemistry
Lesson #4 The 8 Functional Groups

The 8 FUNCTIONAL GROUPS INCLUDE:

1.	5.
2.	6.
3.	7.
4.	8.

A functional group is a specific grouping of atoms which exists in a hydrocarbon and gives the molecule the ability to react in a specific manner or gives it special properties

Of the eight functional groups you are responsible for knowing how to name:

- 1.
- 2.
- 3.

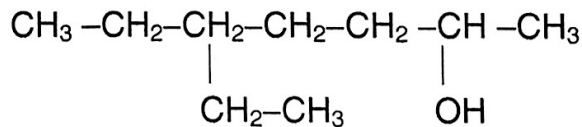
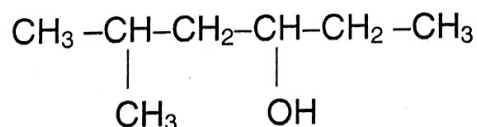
While for the remaining groups you must be able to recognize their formulas and structures.

ALCOHOLS- are organic compound that contain an "OH" group attached to a carbon in the carbon backbone:

RULES for naming alcohols:

- 1.
- 2.
- 3.

Example 1: Name the following alcohols



ALDEHYDES:- organic compounds that contain a $\text{HC}=\text{O}$ group at the end of the compound **EXAMPLE**:

KETONES: - organic compounds that contain a $\text{C}=\text{O}$ group in the middle of the compound. Example:

ETHERS: - organic compounds that contain an "O" group in the backbone of the compound. Example:

ORGANIC ACIDS or CARBOXYLIC ACIDS: - organic compounds that contain a $\text{O}=\text{C}-\text{OH}$ group at the end of the compound Example.

AMINES: - organic compounds that contain a NH_2 group at the end of the compound. Example:

AMIDES: - organic compounds that contain a $\text{O}=\text{C}-\text{NH}_2$ group at the end of the compound. Example:

ESTERS: - organic compounds that contain a $-\text{O}-\text{C}=\text{O}$ group in the backbone of the compound. Example:

HOMEWORK: Exercise #37