

Heteroatom

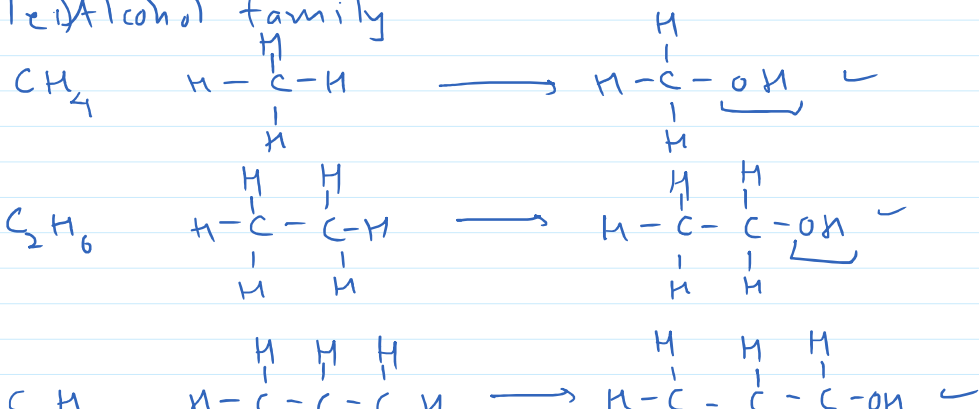
In a hydrocarbon chain, one or more hydrogen can be replaced by elements such as halogens, oxygen, nitrogen, sulphur etc. The element replacing hydrogen is called heteroatom.

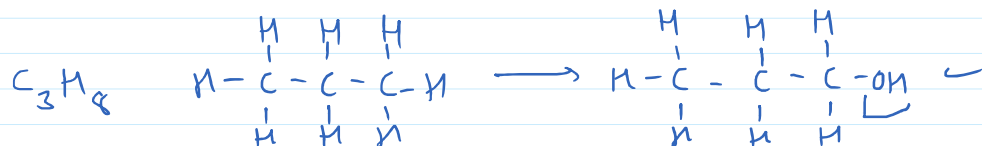
Functional group

The heteroatom / the group containing heteroatom which give specific properties to an organic compound regardless of length and nature of carbon chain are called functional group.

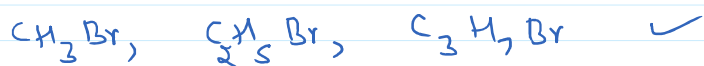
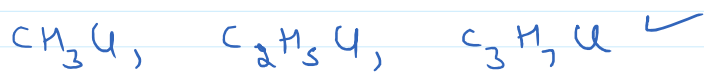
Heteroatom	Functional group	Formula of functional group
Cl/Br	Halo - (chloro/ bromo)	- Cl, - Br
oxygen	i) Alcohol	- OH
	ii) Aldehyde	$\begin{array}{c} \text{O} \\ \parallel \\ - \text{C} - \text{H} \end{array}$
	iii) ketone	$\begin{array}{c} \text{O} \\ \parallel \\ - \text{C} - \end{array}$
	iv) Carboxylic acid	$\begin{array}{c} \text{O} \\ \parallel \\ - \text{C} - \text{O} - \text{H} \end{array}$

Example: i) Alcohol family

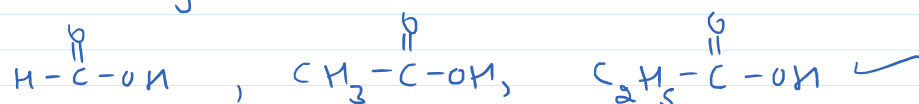




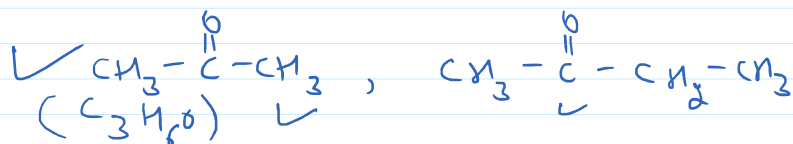
ii) Halogen family



iii) Carboxylic acid



iv) Ketone family



v) Aldehyde family

