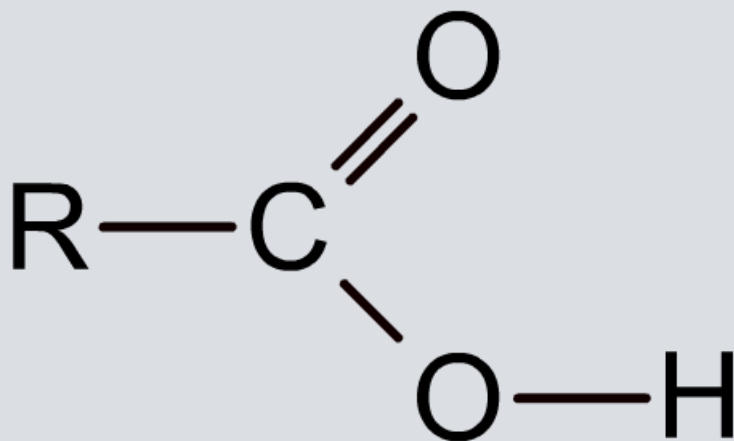
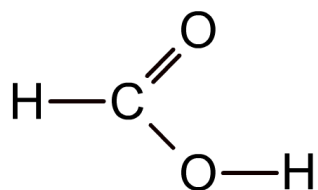


Functional Groups

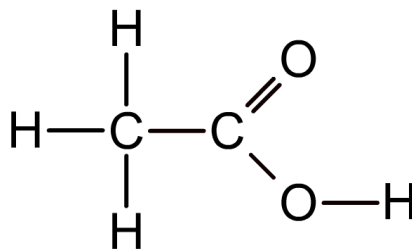


A **functional group** is an atom or group of atoms responsible for the typical chemical reactions of a molecule.

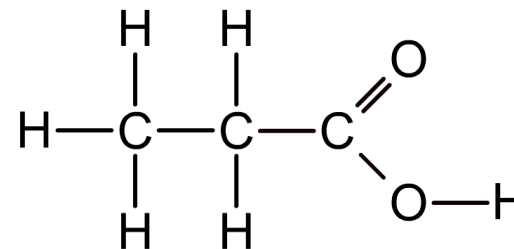
A **homologous series** is a group of molecules with the same functional group but a different number of $-\text{CH}_2$ groups.



methanoic acid
(HCOOH)



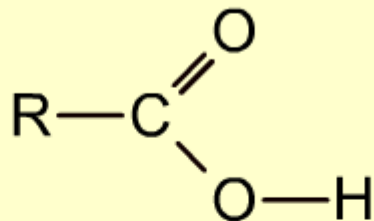
ethanoic acid
(CH₃COOH)



propanoic acid
(CH₃CH₂COOH)

Functional groups determine the pattern of reactivity of a homologous series, whereas the carbon chain length determines physical properties such as melting/boiling points.

Functional groups and homologous series



Click on the name of a homologous series to see details of its functional group and example structures.

alkanes

alkenes

halogenoalkanes

alcohols

aldehydes

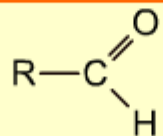
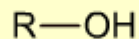
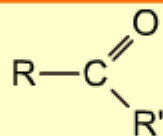
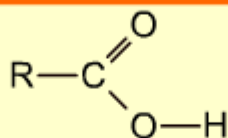
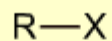
ketones

carboxylic acids

amines



Match the functional group to the organic compound



aldehyde

carboxylic acid

halogenoalkane

ketone

alcohol

S

