Organic Chemistry

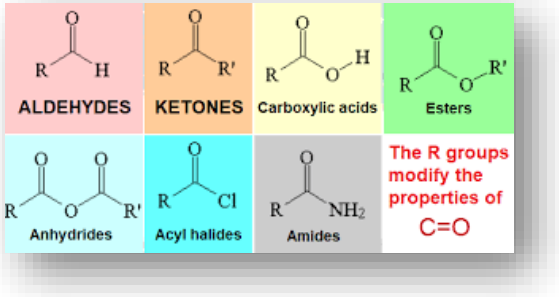
What I have summarized about...

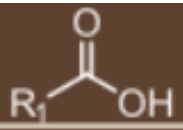
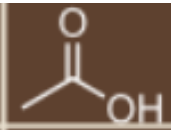
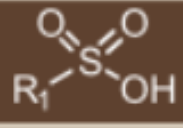
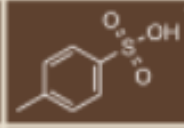
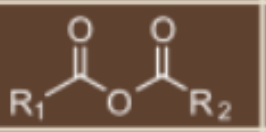
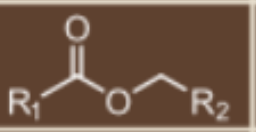
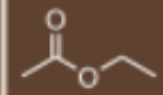
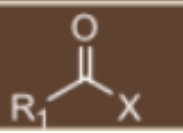
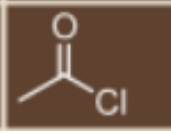
Prefix and Suffix

By Moni Rodríguez

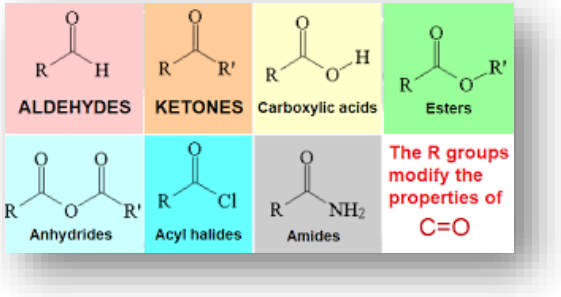
4APRENDERA®

Group I
Carboxylic Acid and Ester



Name	Formula	Prefix	Suffix	Example	Notes
Carboxylic acid		carboxy	-oic acid	 Ethanoic acid	Common are acetic acid (vinegar) and butyric acid (human vomit)
Sulphonic acid		*	- sulfonicic acid	 Tolene sulphonic acid	Used in batteries and dye production.
Anhydride		*	-anhydride	 Maleic anhydride	Used in production of polymers
Ester		alkoxycarbonyl	R_1-...-R_2 oate	 Ethyl acetate	Often good smell and flavor
Acid halide		Haloformyl-	-R_1oyl halide	 Acetyl chloride	Usually lachrymatory

Group I
Amide, Aldehyde and Ketone



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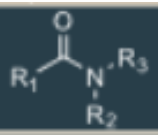
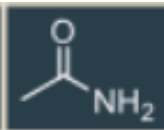
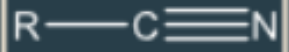
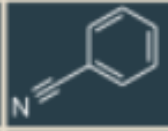
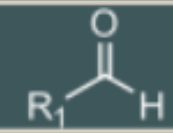
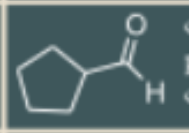
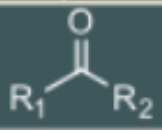
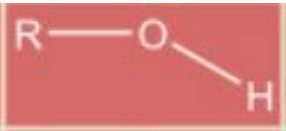
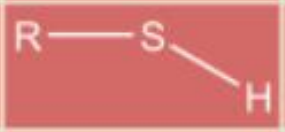
Amide		Amido-	-amide	 Ethan amide	Distinctive feature of proteins (hair, spider si enzymes)
Nitriles		Cyano-	-nitrile	 Benzo nitrile	Found in a lot of fruits and nuts, as well as application in medicin
Aldehyde		Oxo-	-al	 cyclo pentane carbaldehyde	Production of resins a plastics. Ingredients of flavours and parfumes.
Ketone		Oxo-	-one	 Propan-one	Solvents, precursor for polymers, pharmaceuti

Group II
Alcohol , Amine

Name	Formula	Prefix	Suffix	Example	Notes
Alcohol		Hydroxy-	-ol	 Methanol	Favorite way to spend Friday evening.
Thiol		Mercapto-	-thiol	 Methane thiol	Cysteine, many cofactors
Amine		Amino-	-amine	 Methan amine	Amino acids, dyes drugs

Group III
Alkene, Alkyne and Alkane

Name	Formula	Prefix	Suffix	Example	Notes
Alkene	$R_1{=}{=}R_2$	enyl	- ene	$H_2C{=}CH_2$ Ethene	Plastic manufacture, fuel
Alkyne	$R_1{\equiv}R_2$	ynyl	- yne	$HC{\equiv}CH$ Ethyne	Pharmaceuticals, some plants
Alkane	$R_1{-}{-}R_2$	yl	- ane	$H_3C{-}CH_3$ Ethane	Heating and cooking purposes

Group IV
Halide and Nitro

Name	Formula	Prefix	Suffix	Example	Notes
Ether		[group] oxy-	*	 Methoxy ethane	Solvents, anesthetics
Halide/ Pseudohalide	-X	Halo-	*	 Chloro ethane	Used in lamps, photography
Ps.Hal: Nitro/ Nitroso compd.	$-NO_2$ -NO	Nitro- Nitroso-	*	*	Fuel, explosive, heart medicine
Ps.Hal: Azido/ Cyanato compd.	$-N_3$ -OCN	Azido- Cyanato-	*	*	Detonators, toxins