Hydrocarbons | oxygen-containing groups | Nitrogen containing group | sulfur containing group

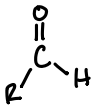
C–C **Alkane** ("ane" looks like "one")

C=C **Alkene** ("ene" think benzene w/ π bonds)

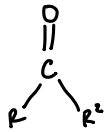
C≡C **Alkyne** ("yne" … y not 3)

Amine (amine? 3 R + N)

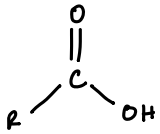
R–OH **Alcohol** (-ol … close to -OH)



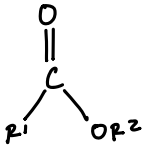
Aldehyde (-al loves O (π) + hyde likes H (σ))



Ketone (like to keep π bond w/ O)

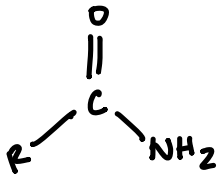


Carboxylic Acid (carbon + ox(O) + Acid → OH)
-oic acid



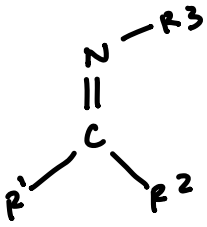
Ester (Easter egg (=O) + (OR) candy)
-oxy -ane

R–O–R² **Ether** (either OR (2 r's))
-ene oxide

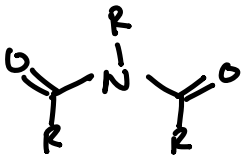


Amide (Amy would di w/ out π O + NH_2)

R–C≡N **Nitrile** (3 vowels = C≡N)

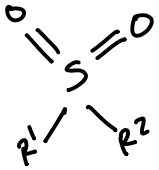


Imine (2 I = C=N; n=3 bonds + C=4) (R3) (R'-2)



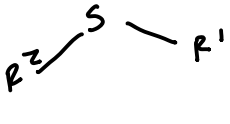
Imide (symmetrical, ide = π oxy. → +3 R)

R–SH **Thiol** (thiol = SH)



Sulfone

(if you divide horizontally it looks like a rotary phone) … kinda



Sulfide (selfish … 2 Rs)

Disulfide (… 2 S)

* Remember the 5, 10, 15, 20 Rule * *The lower the pKa the more acidic*

- carboxylic acid : pKa → 5
- phenol : pKa → 10
- alcohols: pKa → 15
- alpha H from carbons : pKa → 20