

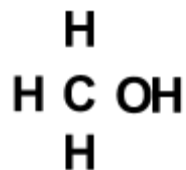
Alcohols

- A hydrocarbon with an -OH group

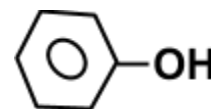
Naming

- Find the longest chain containing -OH, end it in -ol
- Name branches from lowest number, name -yl
- Number halogens. Name "-o"
- Name Branches in alphabetical order

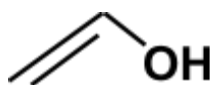
Methanol



Benzenol (Phenol)



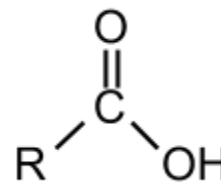
Ethenol

**Carboxylic Acids**

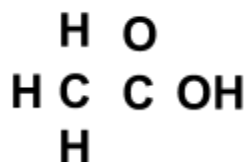
- All chemicals with a carbon bonded to BOTH a Oxygen AND Hydroxide (-COOH)

Naming

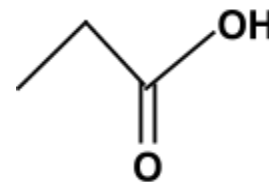
- Find the longest chain containing -COOH, end it in -oic acid
- Name branches from lowest number, name -yl
- Number halogens. Name "-o"
- Name Branches in alphabetical order



Ethanoic Acid



Propanoic Acid (Lactic Acid)



Esters

- Containing a carboxylic acid and an alcohol connected at their "hydroxyl group"

Naming:

- Find the chain without the double bonded oxygen, name it with -yl
- Name the double bonded oxygen group with -oate
- Number halogens. Name "-o"
- Name Branches in alphabetical order

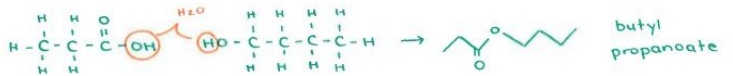
Used in aromas, smelly... also the main part of fat molecules

Esterification

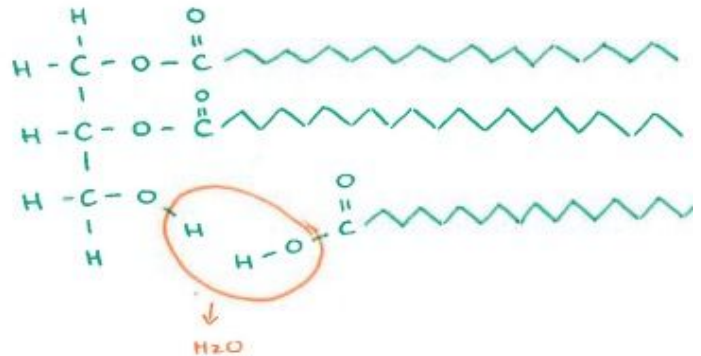
Methanol + ethanoic acid → methyl ethanoate + water



Propanoic acid + butanol → butyl propanoate + water

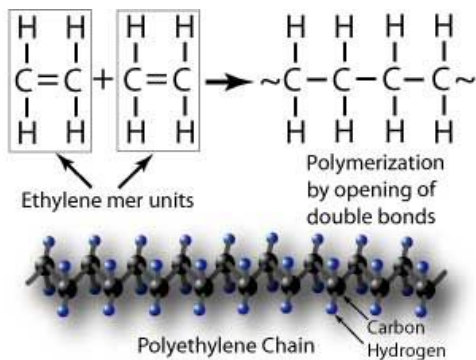


Glycerol + Fatty acid → Fat molecule

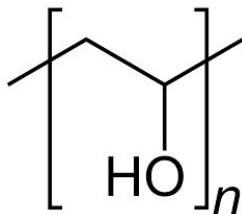


Polyesters and Bioplastics

- Most plastics are synthetic polymers

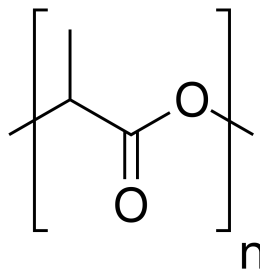


PVA (Polyvinyl Alcohol) (White Glue)



Bioplastics are a special polymer plastic that can completely biodegrad.

PLA (polylactic acid) (3D printers)



Science 30 - Lesson 23 - Alcohols, Acids and Esters

Name: _____

Draw the Following compounds

Ethanoic acid (aka acetic acid) (aka... vinegar)	3 bromo butan 1,3 diol
Pentyl pentanoate (apple smell)	2 chloro benzenoic acid
Methyl ethanoate (glue smell)	Octanoic acid (coconut)
1,1,2,2 tetrafluoro ethane	Ethan 1,2,2 -triol
2 chloro, 4 iodo phenol	Decyl nonanoate
4 iodo heptanoic acid	3 chloro 4,5 diiodo cyclo hexene (think ring...)

Name the following compounds

