

CAIE Chemistry IGCSE

11.2 Naming organic compounds

Flashcards

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What are the names and chemical formulae of the first two alkanes?



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Methane (CH_4)

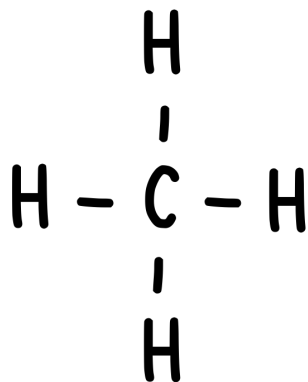
Ethane (C_2H_6)



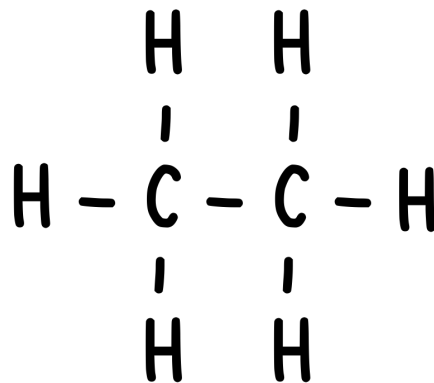
What is the displayed formula for the first two alkanes?



What is the displayed formula for the first two alkanes?



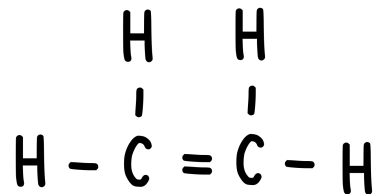
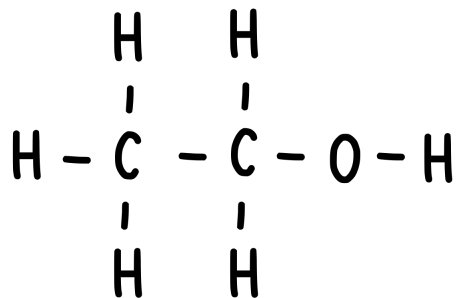
Methane



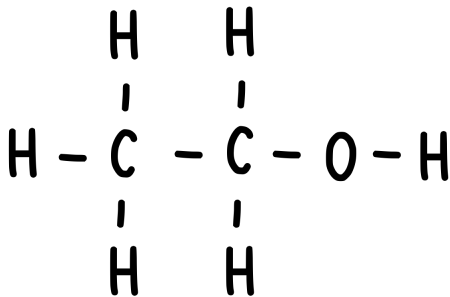
Ethane



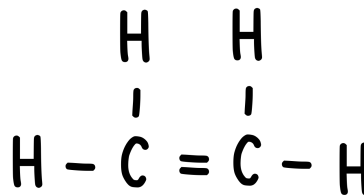
Name the following structures:



Name the following structures:



Ethanol



Ethene



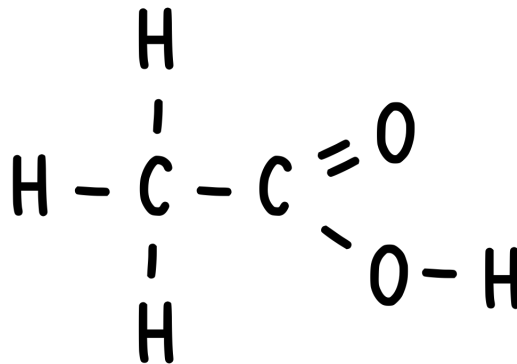
Write the chemical and displayed formulae of ethanoic acid



Write the chemical and displayed formulae of ethanoic acid

Chemical formula: CH_3COOH

Displayed formula:



Name the first four alkanes and the first
three alkenes
(extended only)



Name the first four alkanes and the first three alkenes (**extended only**)

Alkanes:

- Methane
- Ethane
- Propane
- Butane

Alkenes:

- Ethene
- Propene
- Butene



Name the first four alcohols and
carboxylic acids
(extended only)



Name the first four alcohols and carboxylic acids (extended only)

Alcohols:

- Methanol
- Ethanol
- Propanol
- Butanol

Carboxylic acids:

- Methanoic acid
- Ethanoic acid
- Propanoic acid
- Butanoic acid

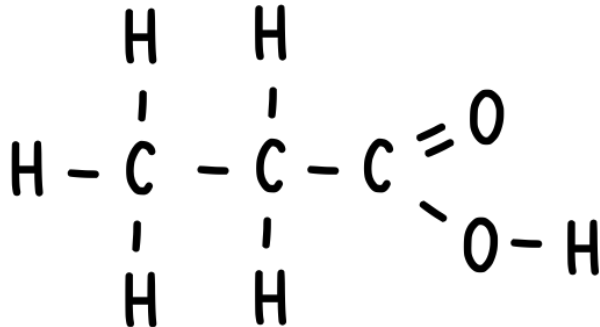


Draw the displayed formula of propanoic acid
(extended only)



Draw the displayed formula of propanoic acid
(extended only)

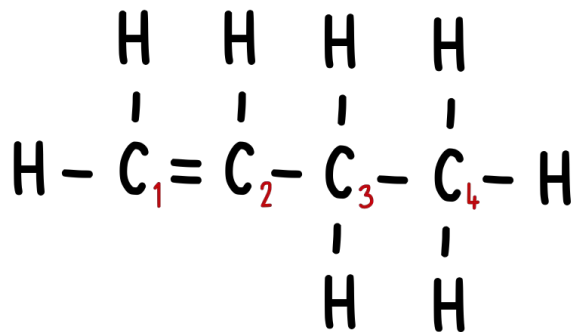
Propanoic acid:



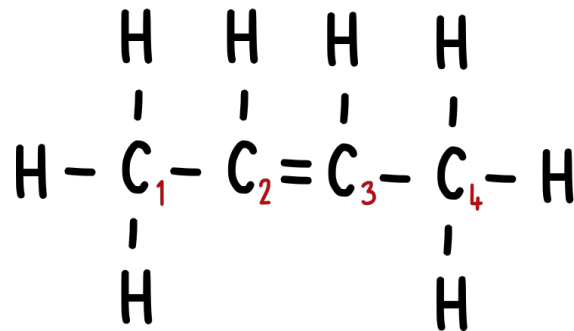
Draw the displayed formula of but-1-ene
and but-2-ene
(extended only)



Draw the displayed formula of but-1-ene and but-2-ene (**extended only**)



but-1-ene



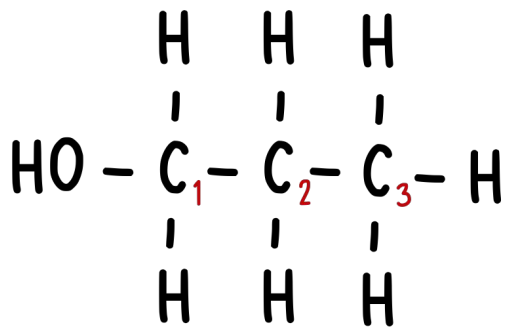
but-2-ene



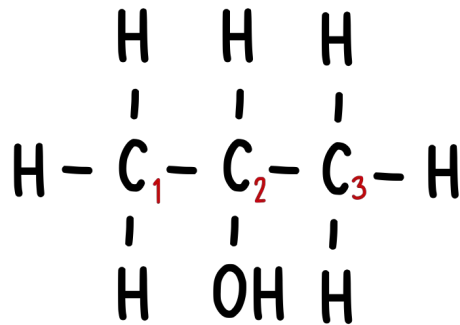
Draw the displayed formula of
propan-1-ol and propan-2-ol
(extended only)



Draw the displayed formula of propan-1-ol and propan-2-ol (**extended only**)



propan-1-ol



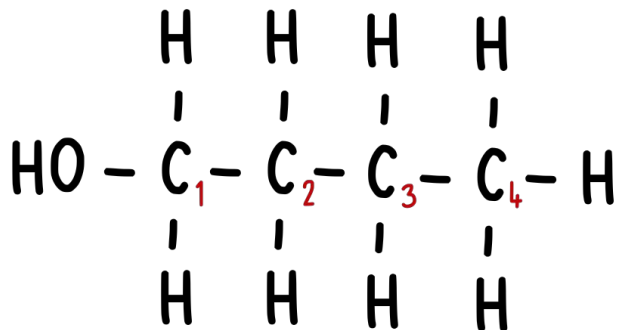
propan-2-ol



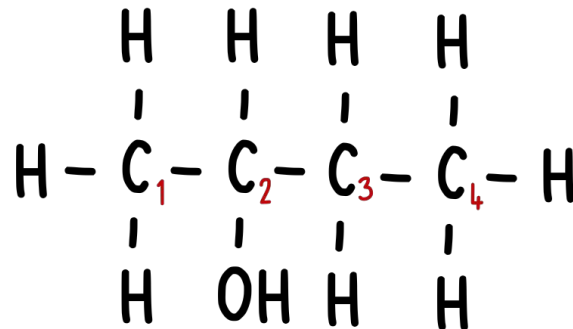
Draw the displayed formula of butan-1-ol
and butan-2-ol
(extended only)



Draw the displayed formula of butan-1-ol and butan-2-ol (extended only)



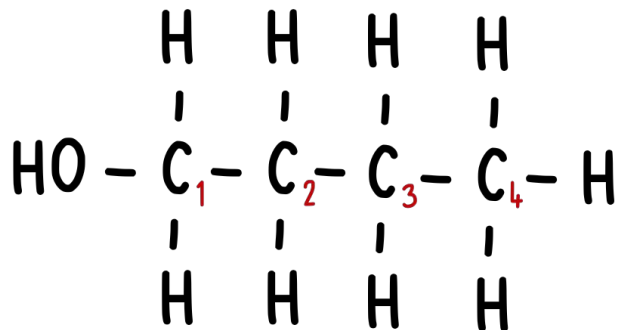
butan-1-ol



butan-2-ol

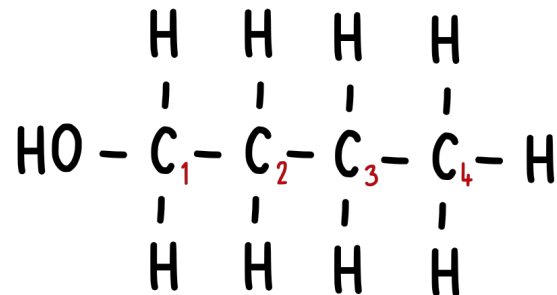


Name the compound below. What is its chemical formula?
 (extended only)



Name the compound below. What is its chemical formula? (extended only)

Name: Butan-1-ol



Chemical formula: $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$

(or $\text{C}_4\text{H}_9\text{OH}$)



What type of compound is present when the name ends in -ane, -ene, -ol or -oic acid?



What type of compound is present when the name ends in -ane, -ene, -ol or -oic acid?

-ane → alkane

-ene → alkene

-ol → alcohol

-oic acid → carboxylic acid



What type of compound has the
molecular formula C_2H_4 ?



What type of compound has the molecular formula C_2H_4 ?

Alkene

C_2H_4 is the molecular formula for ethene.



What type of compound has the
molecular formula $C_3H_6O_2$?



What type of compound has the molecular formula $C_3H_6O_2$?

Carboxylic acid

$C_3H_6O_2$ is propanoic acid (extended only).



How is an ester formed? Write a general equation for the reaction that produces an ester
(extended only)



How is an ester formed? Write the general equation for the reaction that produce an ester (**extended only**)

An ester is formed when a carboxylic acid and alcohol are reacted together.

Alcohol + carboxylic acid \rightarrow ester + water



How do you name esters? (extended only)



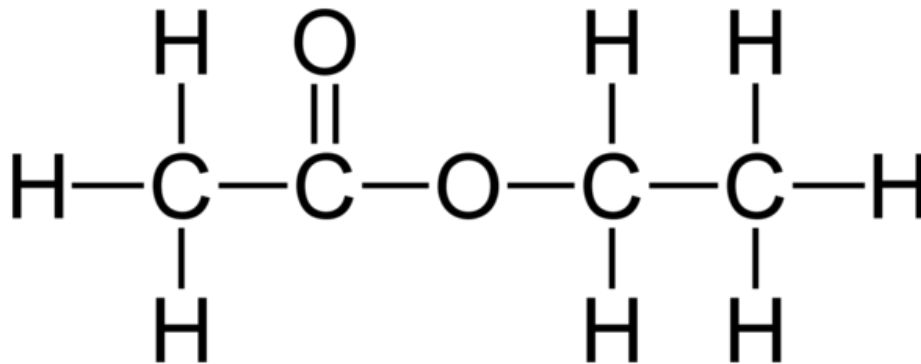
How do you name esters? (extended only)

(Prefix of the alcohol)-yl + (name of carboxylic acid minus 'oic acid')-anoate.

E.g. An ester formed from propanol and ethanoic acid would be propyl ethanoate.

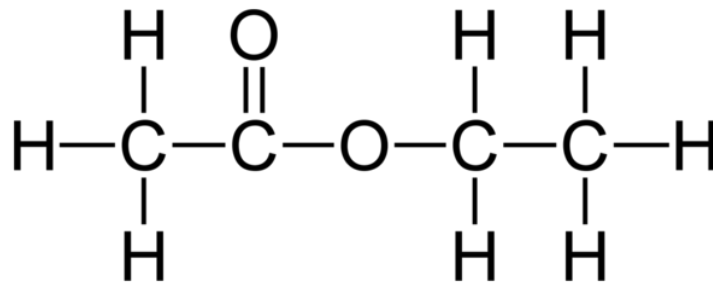


Name the ester shown below:
(extended only)



Name the ester shown below: (extended only)

Ethyl ethanoate



Draw the displayed formula of propyl
ethanoate
(extended only)



Draw the displayed formula of propyl ethanoate.
(extended only)

