

Nomenclature and functional groups

Answer all the questions below as fully as you can then check your answers

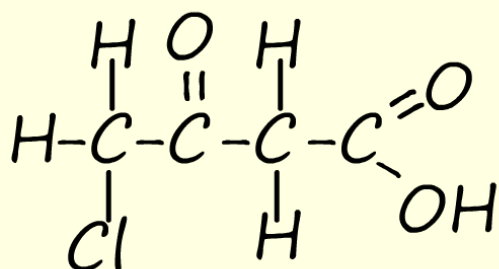
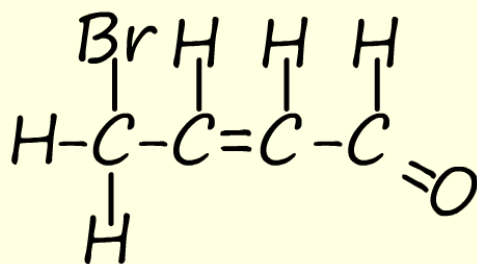
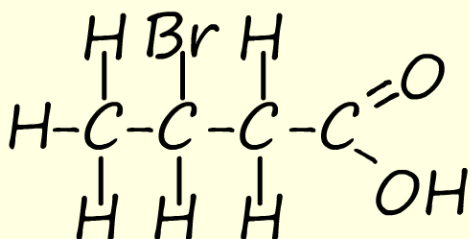
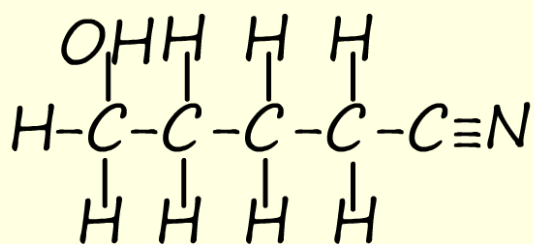
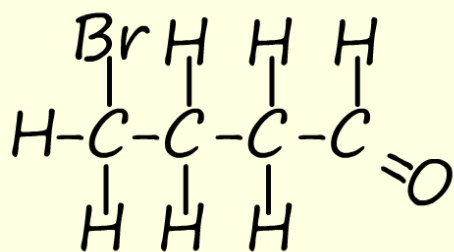
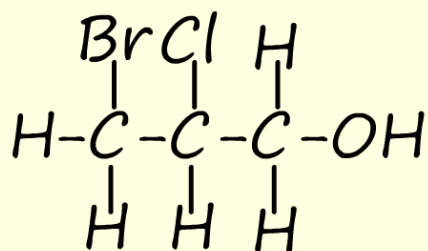
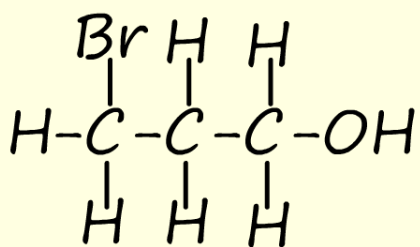
1. What is a functional group?
2. Complete the table below to which shows common functional groups you are likely to meet, the first entry has been done for you

Homologous series	Functional group
alcohols	C-OH
Carboxylic acids	
Aldehyde	
Ketone	
Ether	
Ester	
Amine	
nitrile	

3. What does the table below show?

Order of priority	Carboxylic acid	ester	nitrile	aldehyde	ketone	alcohol	amine	alkene	halogen
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4. Name the compounds below:



Answers

1. What is a functional group?

Reactive part of a molecule that is responsible for its characteristic chemical properties

2. Complete the table below to which shows common functional groups you are likely to meet, the first entry has been done for you

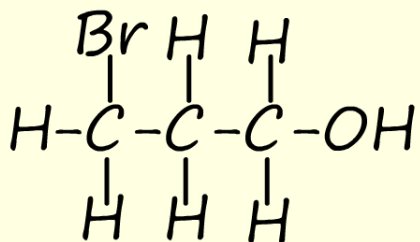
Homologous series	Functional group
alcohols	C-OH
Carboxylic acids	COOH
Aldehyde	CHO
Ketone	RCOR
Ether	ROR
Ester	ROOCR
Amine	NHR
nitrile	RCN

3. What does the table below show?

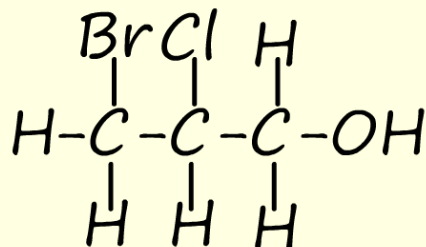
Order of priority	Carboxylic acid	ester	nitrile	aldehyde	ketone	alcohol	amine	alkene	halogen
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The ranking order of priority of functional groups we use when deciding on how to name a molecule with more than one functional group.

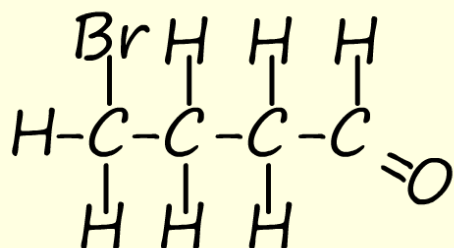
4. Name the compounds below:



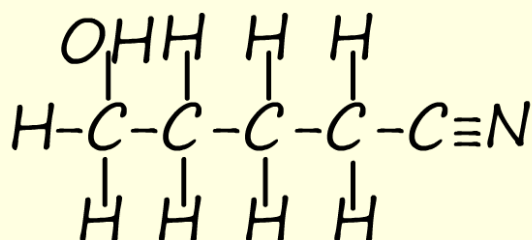
3-bromopropan-1-ol



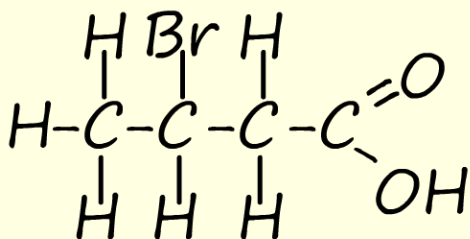
3-bromo-2-chloropropan-1-ol



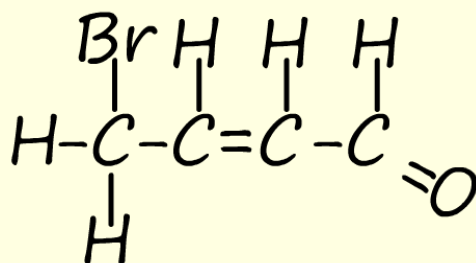
4-bromobutanal



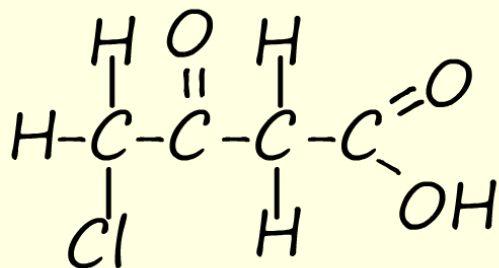
5-hydroxypentanenitrile



3-bromobutanoic acid



4-bromobutan-2-enal



4-chloro-3-oxobutanoic acid