## **ISOMERS (II)**

Many carbon compounds, other than hydrocarbons, have isomers.

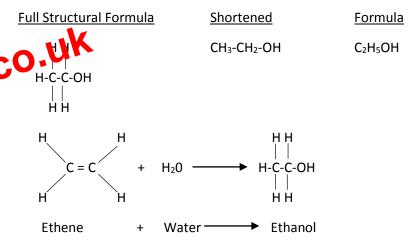
e.g.	ннн	ннн	Same Formula	
	H-C-C-C-H	H-C-C-CI	Different Structure	
	H CI H	ннн	Isomer	
				esale.C
	CH <sub>3</sub> -O-CH <sub>3</sub>	CH <sub>3</sub> -CH <sub>2</sub> -OH	~ NO	650
		an fro	) fforent Structure	of 5
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REAC	TION OF ACKELIES		ひり	

- Alkanes, Alkenes, Cycloalkanes are hydrocarbons.
- Alkanes and cycloalkanes are saturated; all the carbon bonds are single covalent bonds.
- Alkenes are unsaturated; the molecules contain a carbon to carbon double bond.
- When bromine (in solution) is added to an unsaturated hydrocarbon, the brown colour of the bromine 'disappears' i.e. the bromine is immediately decolourised.
- In this reaction, the carbon to carbon double bond breaks and the bromine atoms add themselves to either side of the double bond.

## e.g. Propene with bromine

## **ALCOHOLS**

The hydroxyl group (-OH) gives the characteristic properties to the alcohol.



## **NAMING ALCOHOLS**

Isomerism can occur from only propanol onwards.

e.g. 
$$_{3}$$
  $_{2}$   $_{1}$   $_{1}$   $_{2}$   $_{3}$   $_{3}$   $_{2}$   $_{3}$   $_{2}$   $_{3}$   $_{3}$   $_{4}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{3}$   $_{4}$   $_{5}$   $_{5}$   $_{6}$   $_{7}$   $_{1}$   $_{1}$   $_{2}$   $_{3}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{1}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{2}$   $_{3}$   $_{4}$   $_{5}$   $_{$ 

- 1. Select longest carbon chain.
- 2. Number the carbon atoms from end of carbon chain nearer to the functional group and indicate the position of the function group.
- 3. Name any branch(es) and indicate the position(s) of the branch(es) on the chain.

Some alcohols have more than one hydroxyl group.