

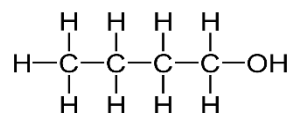
Functional group	
General formula	
Uses	
How they are produced	

Combustion is when a substance completely burns in _____. The products of burning hydrocarbons and alcohols are always _____ and _____.

Balance the following combustion equations:

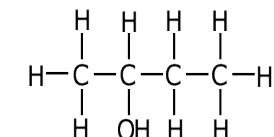


Draw the experiment used calculate heat energy from burning fuels



Butan-4-ol

Butan-1-ol



Butan-3-ol

Butan-2-ol

Alcohols

Combustion

Measuring energy from fuels

Match the name with the alcohol

Energy from fuels and consumer products



Chemical reactions that give out heat energy are known as _____. In these reactions the temperature of reaction _____.

In alcohols and carboxylic acids as the number of carbon atoms _____ the solubility _____.

Examples of soluble alcohols-

Example of insoluble alcohols

Properties

Carboxylic acids

Calculating energy from fuels

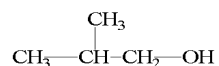
Equation used to calculate energy released from burning fuels is:

A student recorded the following data from burning an alkane and using it to heat some water:

Mass of alkane burned	1 g
Volume of water	200 cm ³
Initial temperature of water	15 °C
Final temperature of water	55 °C

Calculate the energy released from this experiment in kJ

Draw and name an isomer of this alcohol



Draw butanoic acid

Give the shortend structure for this acid

Functional group	
General formula	
Uses	