## AQA Combined Science Chemistry

## Unit 7: Organic Chemistry and Unit 8: Chemical analysis

Unit	7 organic chemis	try		
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1	Hydrocarbon	molecules made up of hydrogen and carbon only		
2	Crude oil	a mixture of different length hydrocarbons formed over		
		millions of years from dead organisms		
3	Alkane	saturated hydrocarbon containing hydrogen and carbon only		
4	Saturated	no double bond		
5	Alkane formula	CnH2n+2		
6	First 4 alkanes	Alkane name	Number of carbons	
		Methane	1	
		Ethane	2	
		Propane	3	
		Butane	4	
7	Fractional distillation	a method of separating crude oil		
8	Fractional distillation	evaporate then condense at different temperatures as each fraction has a different boiling points		
	process			
9	Boiling point	temperature a substance changes from a liquid to a gas		
			stance to flow - the higher the	
		viscosity, the 'thicker' it is		
11	Flammability	how easy it is to ignite and burn		
12	Properties of	low boiling point		
	small chain	highly flammable		
	hydrocarbons	low viscosity		
13	Properties of	high boiling point		
	large chain	difficult to ignite		
	hydrocarbons	high viscosity		
14	Cracking	shorter chains of an alkene and alkane		
15	Testing for	bromine water will change from orange to colourless when		
	alkenes	added to an alkene		

Uni	t 8 chemical analysi	5	
16	Pure substance	single element or compound, not mixed with any other substance	
17	Pure substance properties	melt and boil at specific temperatures	
18	Formulation	mixture that has been designed as a useful product	
Req	uired practical - Ch	romatography	
19	Chromatography	used to separate soluble substances	
20	Stationary phase	chromatography paper	
21	Mobile phase	the solvent	
22	Rf value	the ratio of the distance moved by the solvent	
23	Rf value calculation	distance moved by substance/ distance moved by solvent	
24	Chromatography method	<ul> <li>a. draw a pencil line on bottom of paper</li> <li>b. add spots of each sample to the line</li> <li>c. put in a container with solvent in the bottom</li> <li>d. allow the solvent to move through the paper</li> <li>e. measure the distance travelled by the spots and solvent</li> </ul>	
Gas	tests		
25	Oxygen	relights a glowing splint	
26	Hydrogen	burning splint will burn rapidly with a squeaky pop sound	
27	Carbon dioxide	turns lime water milky	
28	Chlorine	damp litmus paper will be bleached and turn white	