AQA GCSE Combined Science: Trilogy
Topic Checklists

5.7 Organic Chemistry

5.7.1 Carbon Compounds as Fuels and Feedstock				
Topic	**Success Criteria**	**Progress**		
Crude Oil, Hydrocarbons and Alkanes	I can describe how crude oil is formed.			
	I can describe the composition of crude oil.			
	I can give a definition for the term 'hydrocarbon'.			
	I can recall the general formula for the homologous series of alkanes.			
	I can name the first four members of the homologous series of alkanes.			
	I can recognise and write chemical formulae for the first four alkanes.			
	I can recognise and draw displayed structural formulae for the first four alkanes.			
Fractional Distillation and Petrochemicals	I can name some fuels that are produced from crude oil by fractional distillation.			
	I can give some examples of useful materials produced by the petrochemical industry.			
	I can explain why a vast array of natural and synthetic carbon compounds occur.			
	I can explain how fractional distillation works in terms of evaporation and condensation of different fractions.			
Properties of Hydrocarbons	I can describe how the boiling points of hydrocarbons change with increasing molecular size.			
	I can describe how the viscosity of hydrocarbons changes with increasing molecular size.			
	I can describe how the flammability of hydrocarbons changes with increasing molecular size.			
	I can name the products of complete combustion of a hydrocarbon.			
	I can write balanced equations for the complete combustion of hydrocarbons with a given formula.			

Topic	Success Criteria	Progress		
Cracking and Alkenes	I can state the purpose of cracking.			
	I can describe the conditions used for catalytic cracking.			
	I can describe the conditions used for steam cracking.			
	I can give the products of cracking.			
	I can describe how to test for alkenes, including the colour change produced if an alkene is present.			
	I can balance chemical equations as examples of cracking given the formulae of the reactants and products.			
	I can give examples to illustrate the usefulness of cracking.			
	I can explain how modern life depends on the uses of hydrocarbons.			