



## TRILOGY CHEMISTRY PAPER 2

## PERSONAL LEARNING CHECKLISTS

2022

AQA TRILOGY Chemistry (8464) from 2016 Topics T5.6 The rate and extent of chemical change							
Topic	Student Checklist	R	Α	G			
5.6.1 Rate of reaction	Calculate the rate of a chemical reaction over time, using either the quantity of reactant used or the						
	quantity of product formed, measured in g/s, cm <sup>3</sup> /s or mol/s						
	Draw and interpret graphs showing the quantity of product formed or reactant used up against time and						
	use the tangent to the graph as a measure of the rate of reaction						
	HT ONLY: Calculate the gradient of a tangent to the curve on the graph of the quantity of product						
	formed or reactant used against time and use this as a measure of the rate of reaction						
	Describe how different factors affect the rate of a chemical reaction, including the concentration,						
	pressure, surface area, temperature and presence of catalysts						
	Required practical 11: investigate how changes in concentration affect the rates of reactions by a method						
	involving measuring the volume of a gas produced, change in colour or turbidity						
	Use collision theory to explain changes in the rate of reaction, including discussing activation energy						
	Describe the role of a catalyst in a chemical reaction and state that enzymes are catalysts in biological						
	systems						
	Draw and interpret reaction profiles for catalysed reactions						
.2 Reversible reactions and dynamic equilibrium	Explain what a reversible reaction is, including how the direction can be changed and represent it using						
	symbols: A + B ≑ C + D						
	Explain that, for reversible reactions, if a reaction is endothermic in one direction, it is exothermic in the						
	other direction						
	Describe the State of dynamic equilibrium of a reaction as the point when the forward and reverse						
	reactions occur at exactly the same rate						
	HT ONLY: Explain that the position of equilibrium depends on the conditions of the reaction and the						
	equilibrium will change to counteract any changes to conditions						
	HT ONLY: Explain and predict the effect of a change in concentration of reactants or products,						
5.6	temperature, or pressure of gases on the equilibrium position of a reaction						

AQA TRILOGY Chemistry (8464) from 2016 Topics T5.7 Organic chemistry							
Topic	Student Checklist	R	Α	G			
ock	Describe what crude oil is and where it comes from, including the basic composition of						
lsto	crude oil and the general chemical formula for the alkanes						
feec	State the names of the first four members of the alkanes and recognise substances as						
p	alkanes from their formulae	<u> </u>					
s ar	Describe the process of fractional distillation, state the names and uses of fuels that						
ler	are produced from crude oil by fractional distillation						
s fi	Describe trends in the properties of hydrocarbons, including boiling point, viscosity and						
sa	flammability and explain how their properties influence how they are used as fuels						
pur	Describe and write balanced chemical equations for the complete combustion of						
bod	hydrocarbon fuels						
L L	Describe the process of cracking and state that the products of cracking include						
U U	alkanes and alkenes and describe the test for alkenes						
loq	Balance chemical equations as examples of cracking when given the formulae of the						
Car	reactants and products						
.1.	Explain why cracking is useful and why modern life depends on the uses of						
5.7	hydrocarbons						