

Barnsley Academy – (Year 9 Science 9CE) Curriculum
Scheme of Work – 2023-24

Term 1 – Week 1				
	1	2	3	
Lesson Focus	Big Picture – What is rate?	Big Picture – Conclusions from rate of reaction graphs	Big Picture – Effect of concentration on the rate of reaction.	
Prerequisite Knowledge	Y7 & Y8 Particles Chemical reactions 7CC	Y7 & Y8 Particles Chemical reactions Previous lesson: Measuring rates, drawing rate of reaction graphs	Y7 & Y8 Particles Chemical reactions Previous lessons: Measuring rates, drawing rate of reaction graphs, describing, and explaining rate of reaction graphs	
Core Knowledge	<ul style="list-style-type: none"> Describe what a chemical reaction is Describe ways to measure the rate of a reaction Collect and correctly record data to measure the rate of a given reaction 	<ul style="list-style-type: none"> Display data appropriately Make readings from reaction rate curves Describe how and explain why reaction rate changes during a reaction Process secondary data, identifying anomalies, calculation means and rounding answers to the correct number of decimal places. 	<ul style="list-style-type: none"> Collect data to investigate the effect of concentration on rates of reaction Display this data appropriately Describe and explain the effect of concentration on the rate of reaction 	
Expert Model /Guided Practice/Agreed Approach (Procedural Knowledge)	Defining a chemical reaction Highlighting key terms, collisions, activation energy Demonstrating practical procedures Collecting and recording data on rates of reactions	Modelling graph drawing, description and explanation using a visualiser.	Demonstrating the practical procedure on the effect of concentration on the rate of a reaction. Modelling describing and explaining the effect of concentration on the rate of a reaction	

Independent Practice	<p>IP 1 – Describing what a chemical reaction is. Describing what the rate of a reaction is. Stating 2 ways to make a reaction faster. IP 2 – suggesting how to measure the rates of specific reactions. IP 3 – carrying out the practical and recording data in a suitable table. IP 4 – Plotting a graph of the practical results.</p>	<p>IP 1 – plotting a graph on reacting eggshells with hydrochloric acid. IP 2 – describing the graph on reacting eggshells with hydrochloric acid. IP 3 –Completing an exam question on rate of reactions graphs.</p>	<p>IP 1 –carrying out the practical to show the effect of concentration on the rate of a reaction. IP 2 – plotting a graph on the effect of concentration on the rate of a reaction. IP 3 –Completing an exam question on the effect of concentration on the rate of reactions.</p>	
Assessment (Informal/Formal)	<p>Circulation/live feedback/self-assessment/class assessment/whole class feedback (mini whiteboard)/quiz.</p>	<p>Circulation/live feedback/self-assessment/class assessment/whole class feedback (mini whiteboard)/quiz.</p>	<p>Circulation/live feedback/self-assessment/class assessment/whole class feedback (mini whiteboard)/quiz.</p>	
Resources	<p>practical equipment, worksheets, graph paper</p>	<p>worksheets</p>	<p>practical equipment, worksheets</p>	
Specific SEN(D)/EAL support	<p>Axis on graphs provided for SEN/EAL</p>		<p>Axis on graphs provided for SEN/EAL</p>	