

Subject	Year	Term
Science	11	2
Topic		
C6 Rate and extent of chemical change		
Content (Intent)		
<p>Prior Learning (Topic) KS2 national curriculum Y5 properties and changes of materials, KS3 Y7 7C1 changing state, Y8 8C1 properties of elements, 8C2 Chemical reactions and the Earth, Y9 C5 Energy changes</p>		
<ul style="list-style-type: none"> • Measuring rate of reaction • How is the progress of a reaction shown? • How is the rate of a reaction determined? • Collision theory – Temperature, pressure, surface area, concentration. • How does a catalyst affect the rate of reaction? • reversible reactions and dynamic equilibrium • Le Chatellier’s principle (HT only) • How does changing temperature, pressure concentration effect equilibrium? (HT only) • To explain the effect of a catalyst on equilibrium. 		
<p>Future Learning (Topic), Y12 3.2.2 Rates of reaction, 3.2.3 chemical equilibrium Y13 5.1.1 How fast? 5.1.2 How far? 5.1.3 Acids bases and buffers</p>		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p>Practical work:</p> <ul style="list-style-type: none"> • Various practical activities which measure the volume of gas produced, or mass lost during a chemical reaction, or monitoring a precipitate or colour change • Gas collection techniques • Monitoring and graphing the progress of a reaction • Comparing and calculating the rate of reaction • REQUIRED PRAC 11. Rates of reaction <p>Written Notes in book.</p>	<p>- 2 x standard homeworks (Level given. Written feedback. Response expected.) -1 x combined end of topic test with C8 (Level given. Verbal feedback to class and individuals.) - 1 graph marked and fed back</p>	
How can parents help at home?		
<p>Look at the topic specific resources on the VLE Use appropriate youtube channels: cognito, primrosekitten, khan academy, freesciencelessons. Take an interest! Ask your children what they have learnt and be curious about their learning.</p>		
Helpful further reading/discussion		

Reading	Vocabulary Lists	Careers Links
	Rate Reactant Products Collisions Activation energy Catalyst Le Chatellier Reversible Reaction Dynamic equilibrium	Medicine Chemical analysis Engineer Chemical manufactory