

C6.01 Rates of Reaction Science Describe how we can show the rate of reaction on a graph. Explain what is meant by collision theory and how it affects the rate of reaction. Second Calculating Rates of Reaction Describe methods of measuring the rate of reaction using gas syringes, collection over water or balances Calculate the rate of reaction from measuring products or reactants Draw tangents to the curves on rates of reaction graphs and use the slope of the tangent as a measure of the rate of reaction Calculate the gradient of a tangent to the curve on these graphs as a measure of rate of reaction at a specific time (HT only) Calculate the rate of Reaction Calculate the gradient of a tangent to the curve on these graphs as a measure of rate of reaction at a specific time (HT only) Calculate the gradient of a tangent to the curve on these graphs as a measure of rate of reaction as a preclicit. Describe how changing certain factors (temperature, concentration, pressure, surface area and catalysts) affects the rate of chemical reactions. Meanting in A method involving a change in colour or turbidity. Investigate how changes in concentration affect the rates of reactions using two methods:			What h	ave I done pre	eviously in m	y learning jou	urney?		
In how fast chemical reactions proceed, there are many variables that can be mainpulated to speed the up or solw then down. Chemical reactions way also be reversible and therefore the effect of differ variables needs to be established to identify how to maximise the yield of desired product. Understance energy changes that accompany chemical reactions is important for this process. We will develop our learning by studying the following each lesson: RAG Skills C6.01 Rates of Reaction Describe how we can show the rate of reaction on a graph. Explain what is meant by collision theory and how it affects the rate of reaction. Image: studying the following each lesson: Image: studying the following each lesson: C6.02 Calculating Rates of Reaction Describe now two can show the rate of reaction using gas syringes, collection over water or balances Image: studying the rate of reaction from measuring products or reactants Image: studying the rate of reaction reactants Draw tangents to the curves on rates of reaction graphs and use the slope of the tangent as a measure of the rate of reaction from measuring products or reactants Image: studying the fate of Reaction Image: studying the fate of Reaction C6.04 Measuring the Rate of Reaction (RP) Part 1 Image: studying the fate of reaction affect the rates of reaction suing two methods: Image: studying a change in colour or turbidity. Image: studying a change in colour or turbidity. C6.05 Measuring the Rate of Reaction affect the rates of reactions using two methods: Image: studying a change in colour or turbidity.			 Knowing t Represent Learning a oxidation 	hat chemical rea ting chemical rea about different c and displaceme	actions involve actions using fo hemical reaction nt reactions	the rearrangen ormulae and usi ons including co	nent of atoms ng equations ombustion, ther		
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Future Learning	In AS Level Chemistry there is a building on the content from GCSE in a topic called 'Kinetics'. The study of kinetics enables chemists to determine how a change in conditions affects the speed of a chemical reaction. Whilst the reactivity of chemicals is a significant factor in how fast chemical reactions proceed, there are variables that can be manipulated to speed them up or slow them down.				
	In contrast with kinetics, which is a study of how quickly reactions occur, a study of 'Equilibria' indicates how far reactions will go. Le Chatelier's principle can be used to predict the effects of changes in temperature, pressure and concentration on the yield of a reversible reaction. This has important consequences for many industrial processes. The further study of the equilibrium constant, K_c , considers how the mathematical expression for the equilibrium constant enables us to calculate how an equilibrium yield will be influenced by the concentration of reactants and products.				
In careers	In industry, chemists and chemical engineers determine the effect of different variables on reaction rate and yield of product. Whilst there may be compromises to be made, they carry out optimisation processes to ensure that enough product is produced within a sufficient time, and in an energy-efficient way.				