YEAR 10 CURRICULUM INFORMATION – Chemistry		
	Autumn 1	Autumn 2
What will students be learning?	**Chemical calculations** Students will use calculations to work out how different chemicals can react together, establish patterns, and make predictions about chemicals in industry. They will be able to identify yield, atom economy and volume of gases.	**Chemical changes** Students will study the reactions of the metals with water and acids and should be able to recall and describe these reactions. They will apply their understanding of the reactivity series to displacement reactions and the extraction of metals, as well as introducing higher-tier students to the concepts of oxidation and reduction as the loss and gain of electrons respectively. Students will also learn about salts and how they are prepared, including from metals and acids, acids and bases, and acids and carbonates. Students should be able to prepare a pure, dry sample of a salt from an insoluble metal oxide or carbonate as part of the required practical.
How will students be assessed?	C4 (Chemical calculations) Milestone Required practical – Use titration to investigate reacting volumes	C5 (Chemical changes) Milestone Required practical – Prepare a salt from an insoluble metal carbonate or oxide
Literacy – What keywords will be taught?	Law of conservation of mass, reactant, product, relative formula mass, decomposition, uncertainty, moles, Avogadro's constant, balanced, ratio, limiting reactant, concentration, atom economy, yield, theoretical, volume, pressure	Oxidation, reduction, reactivity, unreactive, electrons, salt, base, insoluble, soluble, neutralise, crystalise, pure, aqueous, solution, pH scale, ionised, strong acid, weak acid
What employability skills are being developed?	Analytical, mathematical, problem solving	Practical skills, historical, analytical, observational,
Wider Curriculum Links?	Maths (manipulating data) Physics (conservation of mass)	Physics (conservation of mass)
What useful websites are there for this topic?	 Free science lessons  Primrose Kitten  Seneca  BBC Bitesize	 Free science lessons  Primrose Kitten  Seneca  BBC Bitesize

What wider reading could be done for this topic?	Textbooks: AQA Chemistry for GCSE Combined Science: Trilogy (Oxford) Textbooks: AQA Chemistry for GCSE Separate Science: Trilogy (Oxford)	Textbooks: AQA Chemistry for GCSE Combined Science: Trilogy (Oxford) Textbooks: AQA Chemistry for GCSE Separate Science: Trilogy (Oxford)
What else can students be doing independently to develop their understanding of this topic?	Exam questions Numeracy practice – ratios, uncertainty	Exam questions Numeracy practice