Chemistry KS5 Curriculum Intent, Implementation and Impact Overview

	Year: 12 Subject: A level Chemistry year 1 IMPLEMENTATION					
INTENT (**OCR A level Chemistry specification coverage** key concepts and skills ('Big ideas')	**Half Term 1 (7)** **Context:** Module 2 Foundations in chemistry **Key Vocabulary:** Atomic structure, periodic table, element, compound, moles, formulae, yield, stoichiometry, redox, orbital, oxidation, reduction **Prior Learning / LTM:** Ks4 chemistry module C1, C2, C4 **Cultural Capital:** Industrial applications of yield calculations	**Half Term 2 (7)** **Context:** Module 2 Foundations in Chemistry Module 3 Periodic table and energy **Key Vocabulary:** Bonding, enthalpy, electronegativity, polar, periodic table, periodicity, ionisation, ionisation energy, boiling point, melting point **Prior Learning / LTM:** Ks4 chemistry module C3, 7, **Cultural Capital:** Link to DNA structure	**Half Term 3 (7)** **Context:** Module 3 Periodic table and energy **Key Vocabulary:** Halogen, qualitative, conservation of energy, endothermic, exothermic, calorimetry, enthalpy, collision theory, catalyst **Prior Learning / LTM:** Ks4 chemistry module C3, 7, **Cultural Capital:** Catalytic converters	**Half Term 4 (6)** **Context:** Module 3 Periodic table and energy Module 4 Core Organic Chemistry **Key Vocabulary:** Equilibrium, Le Chatelier's principle, equilibrium constant, alkane, alkene, radical, curly arrow, mechanisim **Prior Learning / LTM:** Ks4 chemistry module C9, 10 **Cultural Capital:** Domestic/industrial fuels	**Half Term 5 (5)** **Context:** Module 4 Core Organic Chemistry **Key Vocabulary:** Stereoisomer, electrophilic addition, polymer, monomer, nucleophilic substitution, CFC **Prior Learning / LTM:** Ks4 chemistry module C9, 10, C11,C13, C14 **Cultural Capital:** Environment impact of CFCs and polymes	**Half Term 6 (6)** **Context:** Module 4 Core Organic Chemistry **Key Vocabulary:** Reflux, redistillation, synthesis, infra-red spectroscopy, mass spectrometry, fragmentation, analytical techniques **Prior Learning / LTM:** Ks4 chemistry module C9, 10, C11, C12, C14, C15 **Cultural Capital:** Drug testing in sport, forensic analysis
All material in the Universe is made of very small particles	X	X	X	X	X	X
The composition of the Earth and its atmosphere	X	X	X	X	X	X
The total amount of energy in the Universe is always the same	X	X	X	X	X	X
Apply knowledge and understanding to explain observations.	X	X	X	X	X	X
Use different types of scientific enquiry to answer scientific questions.	X	X	X	X	X	X
Use technical terminology with confidence accurately and precisely.	X	X	X	X	X	X

Apply mathematical knowledge to scientific understanding.	X	X	X	X	X	X
Awareness of some of the social and economic implications of science	X	X	X	X	X	X
IMPACT	Assessment: Y12 baseline assessment. Module diagnostic tests and weekly homework. Maths in physics skills assessment Progression to Post 18: Physics, maths and STEM further education courses an STEM careers	Assessment: Formal assessment 1 Module diagnostic tests and weekly homework. Maths in physics skills assessment Progression to post 18: Physics, maths and STEM further education courses an STEM careers	Assessment: Formal assessment 2 Module diagnostic tests and weekly homework. Practical skills assessment Progression to post 18: Physics, maths and STEM further education courses an STEM careers	Assessment: Formal assessment 3 Module diagnostic tests and weekly homework. Maths in physics skills assessment Progression to post 18: Physics, maths and STEM further education courses an STEM careers	Assessment: Module diagnostic tests and weekly homework. Practical skills assessment Progression to post 18: Physics, maths and STEM further education courses an STEM careers	Assessment: Formal assessment 4 Trial exams Module diagnostic tests and weekly homework. Progression to post 18: Physics, maths and STEM further education courses an STEM careers

Cultural Capital is the body of knowledge a student needs so that they can flourish in the future and not be left behind. LTM = Long Term Memory.