	Intent **To develop students' understanding of matter and substances, to develop practical skills, to develop skills in data analysis and problem solving, to develop investigative and critical thinking skills, to develop chemical literacy to allow students to make sense of the world around them and scientific issues.**		
Year 11 Chemistry	**Term 1 September to December** C0 Formulae Equations and Hazards C1a Atomic Structure and the Periodic Table C6 Groups and the Periodic Table	**Term 2 January to Easter** C7: Rates and energy Review of C8a and C8b Fuels and Earth Science C1c Quantitative Chemistry (Into Term 3) Triple SC9 Separate Chemistry (9b, 9c , 9d)	**Term 3 April to July** **Revision & Terminal Exams**
Knowledge (facts, information, concepts and key terminology)	Learns hazards symbols for chemical and precautions Learn chemical formulas of substances Name the changes of state and describe the arrangement, motion and energy of particles in each state Describe the structure of the atom in relation to the position of the element and data on the periodic table Describe the chemical reactions and trends physical properties of the elements in Groups 1 and 7 Explain the physical properties of Group 0 and uses of the noble gases	Explain factors that affect the rates of chemical reactions and energy changes in reactions Describe crude oil formation and the uses and properties of fractions Describe combustion reactions of hydrocarbons and the problems associated with the products as well as nitrogen oxides and Sulphur dioxide Describe the composition of today's atmosphere and processes that have changed it in the past and in the modern day TRIPLE- Describe the structure , physical properties and chemical reactions of alkanes, alkenes, polymer alcohols and carboxylic acids	Revision based lessons to recap Knowledge including Yr 10 material and specific gaps identified by EOU Assessments
Understanding (ability to connect and synthesise knowledge within a context)	Justify reasons for selecting a particular practical procedure to separate different mixtures. Interpret data about metal reactions from the reactivity series Apply patterns on chemical reactions studied for groups 1 an d7 elements	Plan, and select equipment and variables for investigating reaction rates and exothermic and endothermic reactions Calculate relative formula mass and concentration and empirical formula (HT- Calculate reacting masses and moles) TRIPLE	Revision based lessons to recap Knowledge including Yr 10 material and specific gaps identified by EOU Assessments
Skills (successful application of knowledge and understanding to a specific task)	Represent any chemical reactions studied using word, balanced and ionic equations. (HT)	Interpret experimental data from table and graphs to draw conclusions about rates and energy of reactions Represent any chemical reactions studied using word, balanced and ionic equations.(HT) Half equations(HT) including state symbols Calculate relative formula mass and concentration and empirical formula (HT- Calculate reacting masses and moles) TRIPLE- Calculate concentrations from titration data, atom economy and molar gas volumes	
Formal Assessments (those done by all/vast majority of the cohort)	Full Paper 1 Mock Exam	Partial Paper 2 Mock Exam	**Term 3 April to July** **Revision & Terminal Exams**
By the end of the year students on course for at least a grade 5 will… Be able to recall the structure of the atom and have knowledge of the subatomic particles they contain Understand hazard symbols of substances and be able to take suitable precautions e.g using acids to make salts. Use chemical equations can be used to represent chemical reactions e.g combustion Be able the interpret information on the periodic table about elements and apply patterns about the properties of the elements Describe and select suitable techniques to separate pure substances from mixtures. Appreciate that the properties of substances arise from their structure and bonding.			