Year 11 – Chemistry – 2019 New Curriculum (ATAR)

Term 1		Term 2		Term 3		Term 4	
W1 INTRODUCTION		W1 Unit 1 topic 1 Intro to bonding Ch 3.1 p 74 Unit 1 Topic 2 Bonding and Properties Ch 7 p147	Covalent Bonding	W1 Rates of reactions Unit 2 Topic 3 Ch 19 p422	Review Measurement and Error	W1 **Revision (Unit 2)**	Revision
			Lewis Structures		Collision Theory		Revision
	Data Booklet Text book overview Expectations and overview		Characteristics/properties of ionic, metallic, covalent & hydrocarbons		Maxwell-Boltzmann Measuring rates of reactions and Calculations Catalyst (p434-439)		Revision
W2 Unit 1 Topic 1 Atomic model Ch 2.1 p44 Periodic table Ch 2.2 p48 Electron config Ch 2.3 p 53	Review Atomic Structure	W2 Unit 2 Topic 1 Intermolecular Forces Ch 12 p268	Characteristics/properties of ionic, metallic, covalent & hydrocarbons	W2 Rates of reactions Unit 2 Topic 3 Ch 19.3 Use this mandatory prac for the assessment**	IA2 Mandatory Prac ** Investigate the rates of chemical reactions	W2 **Revision (Unit 1**)	Revision
	Periodic Table basics and Electron Configurations		Shapes - VESPR		Graphing results and calcs…		Revision
	Electron configurations and orbital diagrams		Polarity and intermolecular forces		Answers and calcs cont… – encourage stns to start rationale -		Revision
W3 Isotopes Ch 4 p92 Unit 1 Topic 1 Periodic Trends Ch 2 p42	Isotopes Periodic table trends- Atomic radius and Ionisation energy	W3 Intermolecular Forces Unit 2 Topic 1 Ch 12.4	Properties	W3	IA2 Panning IA2 and choosing the modifications for the prac	**W3** **Block Exams**	
	Periodic table trends- Atomic radius and Ionisation energy		Prac- Construct Molecules		IA2 Planning and writing up prac		
	Periodic table trends- Electronegativity Oxides Analyse, Evaluate and Interpret data		Properties of water		IA2 Planning and writing up prac		
W4 Unit 1 Topic 2 Compounds and mixtures Ch 6.1 & 6.2 p 130-137 Unit 1 Topic 3 Physical chem changes (Balancing reactions) Ch 9.1 p190 Mole Concept	Pure Substances, Heterogeneous and Homogeneous	W4 Aqueous Solutions and Molarity Unit 2 Topic 2 Ch 15 p352 IA3	Concentration	W4	IA2 Do the prac with their Mods and collect data	W4 Y11/Y12 Camp Rates of	
	Balance equations		Concentration		IA2 Data Analysis		
	The mole concept Avogadro's no		Start IA3		IA2 Analysis and Evaluation		
W5 Unit 1 Topic 3 Mole Concept Ch 8.1-8.3 p170	Conservation of mass Molar Mass	W5 Solubility Unit 2 Topic 2 Ch 16.2 p386	IA3	W5	IA2 Analysis and Evaluation	W5 Equilibrium (Chemical) Ch 2.1 P44	Closed systems and physical changes
	Empirical and molecular formulas		Solubility		IA2 Draft Due!		Dynamic equilibrium Activation energy
	Experimental vs theoretical yield Stoichiometry ratio and limiting reactants		Solubility Curves		IA2 Work on final copy		Graphical data

W6 Mole Concept p177 & p184 Mandatory Prac Page 448 Experimental Yields Ch 8.5 p 182	Solving problems using mole concepts	W6 Ions in solutions Unit 2 Topic 2 Ch 16.1 p378 IA3	Precipitation – Solubility rules	W6 Exothermic and Endothermic reactions Ch 19.2 p430 Energy profile diagrams p430 Unit 1 Topic 3 Ch 9 p202	Energy Profile Diagrams Chemical Energy and Thermochemistry	W6 Factors that affect Equilib Ch 2.2 p49 Equilib Constants Ch 2.4 p62	Le Chatelier's principle & collision theory
	Mandatory Prac- Empirical formula of an oxide (Magnesium Oxide)		IA3		Hess's Law		
	Calculations including percentage yield from experimental or given data		IA3		Specific Heat Capacity		Equilibrium Constants Kc
W7 Unit 2 Topic 1 Gases Ch 14 p 324	Formative assessment	W7	IA3	W7 Fuels Unit 1 Topic 3 Ch 11 p248	IA2 SUBMIT FINAL COPY Mandatory Prac	W7 Equilib constants cont….. Ch 2,4 p62 Properties of acids and bases Ch 3.1 p76 & Ch3.2 p78	Equilibrium Constants
	Relationship between V, n, and molar volume at STP Kinetic theory		IA3		Specific Heat Capacity cont…..		Solving problems calculating equilibrium constants and concentration of reactants
	Ideal Gas law Mole concept to calculate mass of chemicals and or volume of a gas involved in a chemical reaction at STP Problems		IA3 Draft Due!		Compare Fuels		Properties of acids and bases
W8	Mandatory Prac- Properties of gases to determine Molar Volume of a gas	W8 Ions in solutions Unit 2 Topic 2 Ch 16.1	IA3	W8 SWAP WK 8 and 9 Reactions of Acids Unit 2 Topic 2 Ch 18 p412	Acids & Bases	W8 SUBMIT year 11 Results	DO some titrations with Properties of acids and bases (1 hr)
	Data analysis practice for Data test		Draft Feedback		Acids and metals Acids and Carbonates		Titrations End point Equivalence point Indicators
			Experimental Evidence		Equations		Titrations Calculations Practice data test like qns
W9 Assessment Week Data Test	Revision	W9 Unit 1 Topic 3 Measurement, Uncertainty and Error Ch 10 p224	Mandatory Prac – Ions in solution Precipitation reactions to identify cations and anions	W9 pH Unit 2 Topic 2 Ch 17 p400	pH	W9	FINISH year 11
	Data Test		IA3 DUE!! Calculating uncertainty & errors		Arrhenius Model		
	Block exams???		Calculating uncertainty and Graphing		Mandatory Prac- Investigate the properties of strong and weak acids		
W10 Pure Substances Chapter 6.3 p138 Unit 1 topic 1 Intro to bonding Types of bonding Chapter 3.1 p74	Nano materials	W10 Measurement, Uncertainty and Error Unit 1 Topic 3 Ch 10 p238	Random and systematic errors	W10 Analytical Techniques Ch 5 p104 Unit 1 Topic 1	Atomic absorption and emission spectra Analysis of data (most important)		
	Ionic Bonding (Octet, Polyatomic, Formulas & naming)		Significant figures		Flame test AAS As examples of analytical techniques		
	End of term Review				Mass Spectrometry Calculation of relative atomic mass % abundance of isotopes of an element from data (most important)		