Year 9 Triple Chemistry Curriculum Plan							
	Core		Hinterland		NC Coverage	Assessment	Whole Education Opportunities
	Knowledge	Skills	Knowledge	Skills			
States of Matter	• The particle model • Changes of state	• Drawing particle diagrams	•	•	4WD2 4WD3 4WD4 4WD5 4WV1 4WV2 4CG1 4CS1	End of topic assessment (35 marks – CC1-2) PR points use mixed topic assessments	•
Methods of Separating and Purifying Substances	• Mixtures • Filtration and crystallisation • Paper Chromatography • Distillation • Drinking water	• Planning and writing a good method • Drawing diagrams of scientific apparatus • Using a Bunsen burner and heating safely	• Providing safe drinking water in remote places • Forensic sciences	•	4WD2 4WD3 4WD4 4WD5 4WV1 4WV2 4WA1a 4CH1 4CH2	End of topic assessment (35 marks – CC1-2) PR points use mixed topic assessments	• Geography – safe drinking water
Atomic Structure	• Structure of an atom • Atomic number and mass number • Isotopes	• Drawing atomic diagrams	• Development of the structure of the atom	• Understand how experimental data influences scientific theories	4WD2 4WD3 4WD4 4WV1 4WV2 4CA1	End of topic assessment (35 marks – CC3-4) PR points use mixed topic assessments	•
The Periodic Table	• Organising elements • Atomic number and how it links with location on the periodic table • Electron configuration	• Using experimental data to make predictions	• Old vs modern periodic table	•	4WD2 4WD3 4WD4 4WV1 4WV2 4CG2 4CG3 4CA3 4CA4	End of topic assessment (35 marks – CC3-4) PR points use mixed topic assessments	•
Ionic Bonding	• Formation of ions and ionic bonds • Properties of ionic compounds and lattices	• Writing chemical formulae	•	•	4WD2 4WD3 4WD4 4WV1 4WV2 4WV3 4CG4 4CS2	End of topic assessment (35 marks – CC5-7) PR points use mixed topic assessments	•
Covalent Bonding	• Formation of covalent bonds	• Working out molecular formulae • Drawing dot-and-cross diagrams	•	•	4WD2 4WD3 4WD4 4WV1 4WV2 4WV3 4CG4 4CS2	End of topic assessment (35 marks – CC5-7) PR points use mixed topic assessments	•
Types of Substance	• Types and properties of molecular compounds • Allotropes of carbon • Properties of metals and metallic bonding • Comparing bonding models	• Comparing theories and materials using evidence • Using models to represent scientific thinking	• Using material properties to determine most suitable usage (i.e. designing new products)	• Comparing experimental data to determine best usage	4WD2 4WD3 4WD4 4WV1 4WV2 4WV3 4CA6 4CS2 4CS4 4CS5	End of topic assessment (35 marks – CC5-7) PR points use mixed topic assessments	• DT – properties of materials
Acids and alkalis	• Acids, alkalis, indicators – different types and their applications • Strength of acids – pH • Bases and alkalis • Balancing chemical equations • Neutralisation reactions • Reacting metals with acids	• Using atomic models • Following a scientific method • Recognising trends in data • Developing exam skills • Interpreting graphs • Plotting scatter graphs • Balancing chemical equations	• Understand what determines an acids strength Use titration to link to amount of substance	Mole calculations	4WD5 4WE2 4WE4 4WV2 4WV5 4WV6 4CC2 4CC4	• End of topic assessment (30 marks) • PR points using mixed topic assessments PLC tests (10 marks each) – 4 in this topic	pH – link to geography, catering

	• Solubility of ionic salts Titration technique	• Analysing data and concluding scientific ideas • Health and safety understanding Use of titration			4CC5 4CH3 4CH4		
Calculations involving mass	• Calculating formula masses and empirical formula • Conservation of mass and application to equations • Mole calculations and linking moles to formula equations	• Conceiving quantities of atoms and molecules • Effective calculator use • Balancing chemical equations • Understanding chemical formula	• Complex mole calculations at an A level standard	Advanced use of calculators	4WV2 4WV4 4WV5 4WV6 4CG8 4CC1 4CC2 4CC3 4CH3 4CH4	• End of topic assessment (30 marks) • PR points using mixed topic assessments • PLC tests (10 marks each) – 2 in this topic	Maths – use of calculators, dealing with multiplication
Electrolytic processes,	• Electrolysis and determining products from electrolysis • Reactivity series of metals	• Drawing diagrams of electrolysis • Linking in ionic bonding • Following a scientific method • Recognising trends in data • Developing exam skills • Interpreting graphs • Plotting scatter graphs • Balancing chemical equations • Analysing data and concluding scientific ideas • Health and safety understanding	• Redox reaction equations		4WD2 4WE2 4WE6 4WE7 4WA1e 4CG1 4CG4 4CG7 4CI1 4CI2 4CC2 4CC6 4CC7 4CG4	• End of topic assessment (30 marks) • PR points using mixed topic assessments • PLC tests (10 marks each) – 5 in this topic	DT – properties of materials