

Chemistry
Year 11 curriculum map

Year 11 Combined Science	T1	T2	T3	T4	T5	T6
Content / Topic for Term	Year 10 PPE topic review Structure and bonding	Structure and bonding	Analysis	Recap, revise, targeted PPE intervention	Recap, revise, targeted PPE intervention	GCSE examinations
Key Knowledge for acquisition, recall and application in assessment or exam	Year 10 PPE topic review <ul style="list-style-type: none"> • First three weeks review content identified from PPE covey grid Structure and bonding <ul style="list-style-type: none"> • states of matter • chemical bonds • ionic bonding • ionic compounds • covalent bonding • simple covalent Structures <ul style="list-style-type: none"> • giant covalent bonding 	Structure and bonding (cont) <ul style="list-style-type: none"> • metallic bonding • bonding summary • fullerenes and graphene 	Analysis <ul style="list-style-type: none"> • pure substances and mixtures • chromatography • testing for gases 	Recap, revise, targeted PPE intervention	Recap, revise, targeted PPE intervention	
Key skills to apply in assessment	<ul style="list-style-type: none"> • Use scientific vocabulary, 	<ul style="list-style-type: none"> • Use scientific vocabulary, 	<ul style="list-style-type: none"> • Use scientific vocabulary, 	<ul style="list-style-type: none"> • Use scientific vocabulary, 	<ul style="list-style-type: none"> • Use scientific vocabulary, 	

or exam	terminology and definitions. <ul style="list-style-type: none"> • Carrying out and represent mathematical and statistical analysis. • Translating data from one form to another. 	terminology and definitions. <ul style="list-style-type: none"> • Presenting observations and other data using appropriate methods. • Explain every day and technological applications of science; evaluate associated personal, social, economic and environmental implications; and make decisions based on the evaluation of evidence and arguments. 	terminology and definitions. <ul style="list-style-type: none"> • Presenting observations and other data using appropriate methods. • Evaluate risks both in practical science and the wider societal context, including perception of risk in relation to data and consequences. 	terminology and definitions.	terminology and definitions.	
Title of Knowledge Organiser	<ul style="list-style-type: none"> • Structure and bonding 	<ul style="list-style-type: none"> • Structure and bonding 	<ul style="list-style-type: none"> • Analysis 	<ul style="list-style-type: none"> • Various KOs 	<ul style="list-style-type: none"> • Various KOs 	

Year 10 Separate Science	T1	T2	T3	T4	T5	T6
Content / Topic for Term	Year 10 PPE topic review Structure and bonding	Structure and bonding	Organic chemistry (cont) Analysis	Analysis (cont) Using resources	Using resources (cont) Revision of prior content	GCSE examinations
Key Knowledge for acquisition, recall and application in assessment or exam	Year 10 PPE topic review <ul style="list-style-type: none"> • first three weeks review content identified from PPE covey grid Structure and bonding <ul style="list-style-type: none"> • sates of matter • chemical bonds • ionic bonding • ionic compounds • covalent bonding • simple covalent Structures <ul style="list-style-type: none"> • giant covalent bonding 	Structure and bonding (cont) <ul style="list-style-type: none"> • metallic bonding • bonding summary • fullerenes and Graphene <ul style="list-style-type: none"> • nanoparticles • using nanoparticles 	Analysis <ul style="list-style-type: none"> • pure substances and mixtures • chromatography • testing for gases • testing for positive ions • testing for negative ions • instrumental analysis 	Using Resources <ul style="list-style-type: none"> • rusting • alloys • polymers • glass, ceramics and composites • the haber processes • making fertilisers 	Organic Chemistry <ul style="list-style-type: none"> • reactions of alkenes • alcohols • carboxylic acids and esters • polymers • natural polymers 	
Key skills to apply in assessment	<ul style="list-style-type: none"> • Use scientific vocabulary, 	<ul style="list-style-type: none"> • Use scientific vocabulary, 	<ul style="list-style-type: none"> • Use scientific vocabulary, 	<ul style="list-style-type: none"> • Use scientific vocabulary, 	<ul style="list-style-type: none"> • Use scientific vocabulary, 	

or exam	terminology and definitions. • Carrying out and represent mathematical and statistical analysis. • Translating data from one form to another.	terminology and definitions. • Presenting observations and other data using appropriate methods.	terminology and definitions. • Plan experiments or devise procedures to make observations, produce or characterise a substance, test hypotheses, check data or explore phenomena.	terminology and definitions. • Presenting observations and other data using appropriate methods. • Evaluate risks both in practical science and the wider societal context, including perception of risk in relation to data and consequences.	terminology and definitions. • Explain every day and technological applications of science; evaluate associated personal, social, economic and environmental implications; and make decisions based on the evaluation of evidence and arguments.	
Title of Knowledge Organiser	• Quantitative chemistry	• Quantitative chemistry • Organic chemistry	• Organic chemistry • Analysis	• Analysis • Using resources	• Using resources	