Chemistry Super Curriculum Year 12
Periodicity

Recommended Read: *A-Level Chemistry textbook* (AQA/OCR/Edexcel/Eduqas) - specific chapter.	Recommended podcast: "Chemistry World" (RSC podcast) - search for episodes discussing specific elements or groups.	Recommended viewing (You Tube variety of titles & channels): Allery Chemistry: "Group 2"; "Group 7 (Halogens)"; "Periodicity (Trends)".
Written activity: Compare/contrast properties of Group 1 and Group 7 elements; explain trends.	Recommended viewing (You Tube variety of titles & channels): E Rintoul: "Periodicity" playlist - various videos on specific trends.	Recommended Read: "Chemistry in Context" by Hill and Holman.
Building activity (home based): ***Use online interactive periodic tables*** (e.g., ptable.com) to visualize trends.	"Chemistry in its element" - again, focus on elements relevant to the trends.	Written activity: Explain ionization energy, electronegativity, atomic radius trends.
Recommended Read: Chemguide: Periodicity sections.	Written activity: Past Papers	Building activity (home based): ***Research the uses of elements based on their periodic properties.***
Recommended viewing (You Tube variety of titles & channels): Khan Academy: "Periodic trends"	**Job Opportunities & Salary Ranges (GBP)** Use: National Careers Service	

	Reading Task		Creative Task
	Research Task		Writing Task
	Watching Task		Student – Led Task
	Listening Task		Trip or Visit

Chemistry Super Curriculum Year 12
Kinetics

 Recommended viewing (You Tube variety of titles & channels): Allery Chemistry: "Rates of Reaction" several.	 Read: Specific Textbook	 Written activity: Calculate rates of reaction
 Read: Chemguide	 Recommended podcast: Look for Catalysis	 Building activity (home based): Investigate *Enzymes as Catalysis*. Using biological washing powder to look at removing food stains
 Recommended viewing (You Tube variety of titles & channels) E Rintoul, same topic.	 Written activity: Draw graphs 3. Arrhenius Equation.	 Recommended viewing (You Tube variety of titles & channels): Look at Maxwell Boltzmann
Job Opportunities & Salary Ranges (GBP) Use: National Careers Service		

	Reading Task		Creative Task
	Research Task		Writing Task
	Watching Task		Student – Led Task
	Listening Task		Trip or Visit

Chemistry Super Curriculum Year 13
Organic Mechanisms

Recommended viewing (You Tube variety of titles & channels): Allery Chemistry: Multiple videos on specific mechanisms (e.g., "Electrophilic Addition," "Nucleophilic Substitution").	Read: *A-Level Chemistry textbook* - organic chemistry chapters.	Written activity: Practice drawing curly arrow mechanisms for various reactions (SN1, SN2, electrophilic addition, etc.).
Read: Chemguide: Detailed sections on reaction mechanisms	Recommended podcast: Search for podcasts on "organic synthesis," "reaction mechanisms,". Chemistry World might have relevant discussions.	Building activity (home based): ***Molecular model kit***: Use to visualize the steps of a reaction mechanism; represent attacking groups and leaving groups.
Recommended viewing (You Tube variety of titles & channels): E Rintoul: "Reaction Mechanisms" playlist.	Written activity: Predict products of reactions given reactants and conditions	Recommended viewing (You Tube variety of titles & channels): Search for the *specific* mechanism you need.
Written activity: Past Papers	Building activity (home based): ***Create a flowchart or mind map*** to summarize different reaction mechanisms.	Read: "Organic Chemistry as a Second Language" (if struggling).

Job Opportunities & Salary Ranges (GBP)

Use: National Careers Service

	Reading Task		Creative Task
	Research Task		Writing Task
	Watching Task		Student – Led Task
	Listening Task		Trip or Visit

Chemistry Super Curriculum Year 13
NMR Spectroscopy

Recommended viewing (You Tube variety of titles & channels): Loads of example in particular with worked through problems	Read: Textbook sections and Chemguide	Written activity: Attempting to do all different of analysis
Read: University Department of chemistry usually on their websites	Recommended podcast: Very niche subject so searching is time dependent	Building activity (home based): Try to visualise the structural information with modelling kits using information deduced
Recommended viewing (You Tube variety of titles & channels): Khan Academy and other	Written activity: Past papers	Written activity: Research in other spectroscopic techniques such a infrared spectroscopy

Job Opportunities & Salary Ranges (GBP)

Use: National Careers Service

	Reading Task		Creative Task
	Research Task		Writing Task
	Watching Task		Student – Led Task
	Listening Task		Trip or Visit