

## Chemistry

Unit of work	Wider engagement opportunities for Y12			
	Reading/Doing	Watching	Listening	Trips
Autumn 1	Read "The Disappearing Spoon" by Sam Kean Start Chemistry Olympiad past paper questions	Royal Institution: "The Periodic Table" lecture	Royal Society of Chemistry Podcast BBC Radio 4 "Inside Science"	Virtual tour of the Science Museum chemistry exhibits
Autumn 2	Mole calculations practice using ChemCollective Start independent research on periodicity trends	"Chemistry: A Volatile History" (BBC Documentary)	"Chemistry in its Element" podcast (RSC)	Christmas lectures archive (Royal Institution) – watch and discuss in class
Spring 1	RSC Education: Article on Redox in real life OCR/Edexcel synoptic questions for crossover skills	"Planet Earth" for natural processes involving chemistry CrashCourse Chemistry (YouTube)	Nature Chemistry Audio summaries	Invite local university lecturer for careers in chemistry seminar
Spring 2	Past paper practice on kinetics & equilibria Research catalysts in green chemistry (e.g. Haber Process)	TED-Ed: "How to speed up chemical reactions"	The Naked Scientists – Chemistry Focus episodes	Virtual/actual lab visit: local HEI or STEM outreach session (if accessible)
Summer 1	Start EPQ proposal with a chemistry theme "Chemistry World" articles on polymers	Docuseries: "Connected: The Hidden Science of Everything" (Netflix)	RSC Voice of Young Science – Episode on science misinformation	Attend local STEM fair / university open day

	and sustainability			
Summer 2	Write a research report on a chosen A-level topic Work on Chemistry Olympiad extension booklet	Watch NurdRage or NileRed YouTube practical chemistry demonstrations	“The Infinite Monkey Cage” - Science + Society discussions	Chemistry Olympiad: Internal competition or mock round

Unit of work	Wider engagement opportunities for Y13			
	Reading	Watching	Listening	Trips
Autumn 1	Read “Why Chemical Reactions Happen” (James Keeler & Peter Wothers) Practice required practicals	RSC YouTube – Organic Mechanisms Series “Chemical Curiosities” lecture	BBC Sounds: “Unsee the Future” - Environmental impact of chemical processes	Visit to a university chemistry department or lecture
Autumn 2	Past paper challenge: Synoptic questions University-level reading on transition metals	YouTube: Tyler DeWitt’s A-level walkthroughs	Listen to Chemistry World Podcast	UCAS-linked subject taster day (chemistry degree or lab-based careers)
Spring 1	Focused practice on essay-style evaluation (Paper 3 focus)	“The Story of Science” (BBC) – Focus on scientific development	Royal Institution “Discourses” podcast series	Invite former A-level students for Q&A on chemistry pathways
Spring 2	Research NMR and IR spectroscopy case studies RSC Spectroscopy in a Suitcase resources	NMR Explained – RSC videos NileRed complex organic syntheses (with safety warnings)	ChemTalk – Real chemist interviews	Attend STEM Enrichment webinar

Summer 1	Complete CPAC practical reflections Final revision using Isaac Chemistry	"Inside Nature's Giants" – Biochemical insight	The Life Scientific – Chemist profiles	Post-exam celebration trip – e.g. themed escape room / science museum / lab visit
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Possible resources for the Sixth Form Study Centre in order of priority

Whiteboard wall for collaborative reaction mechanism work

Copies of AQA-endorsed textbooks (Oxford or Collins)

"Chemistry Review" Magazine (Philip Allan Updates)

RSC Chemistry World – Print & Online

Access to Isaac Chemistry for revision and mastery

New Scientist Subscription available in G92

Past paper archive and exemplar answer folders

Whiteboard wall for collaborative reaction mechanism work

UCAS / Careers in Chemistry section with leaflets and posters

Some Books that could be both good literature. It also sparks curiosity and insight into the subject and its development:

**The Disappearing Spoon** – *Sam Kean*

ISBN: 9780316051637

**Why Chemical Reactions Happen** – *James Keeler & Peter Wothers*

ISBN: 9780199249732

**Stuff Matters** – *Mark Miodownik*

ISBN: 9780241955185

**The Elements: A Visual Exploration of Every Known Atom in the Universe** – *Theodore Gray*

ISBN: 9781579128951

**Napoleon's Buttons: 17 Molecules That Changed History** – Penny Le Couteur & Jay Burreson

ISBN: 9781585423316

**The Poisoner's Handbook** – Deborah Blum

ISBN: 9780143118824

**Molecules: The Elements and the Architecture of Everything** – Theodore Gray

ISBN: 9780316480581

**Uncle Tungsten: Memories of a Chemical Boyhood** – Oliver Sacks

ISBN: 9780330523677

**The Chemistry of Alchemy** – Cathy Cobb, Monty Fetterolf, Harold Goldwhite

ISBN: 9781616149154

**Bad Science** – Ben Goldacre

ISBN: 9780007284870