

Chemistry Resources for Schools

Resources for students

Key stage	Resource
	Additional Reading
KS5	50 Chemistry Ideas you Really Need to Know- Haley Birch (recommended by students)
KS5	A Guide to Mechanism in Organic Chemistry - Sykes, Pearson (6th edn.),1986
KS5	Chemistry of the Elements - Greenwood & Earnshaw, Pergamon (2nd edn.), 1997 [1st edn. 1985]
KS5	Foundations of Organic Chemistry - Hornby & Peach, Oxford Chemistry Primer, OUP, 1996
KS4-5	Good Reads: Chemistry A list of popular chemistry books.
KS5	Inorganic Chemistry - Shriver and Atkins, Oxford University Press (4th edn) 2006, (previous edn., 1999]
KS5	Introductory Material for undergraduate students
KS5	Mathematical Methods for Science Students - G. Stephenson, Pearson (2nd edn.) 1978, rep. 1984
KS5	Organic Chemistry -Clayden, Greeves, Warren and Wothers, OUP
KS5	Organic Chemistry - Maitland, Jones, Norton, (3rd edn.) 2004
KS5	Physical Chemistry - P W Atkins, Oxford University Press (8th edn.) 2006, [7th edn. 2001]
KS5	The Secret Life of the Periodic Table- Dr Ben Still (fun facts about elements and a simple overview of quantum mechanics)
KS5	Staircase 12 see subject specific materials recommended by current undergraduates.
KS4-5	What is life? How Chemistry became Biology- Addy Pross
KS5	Why Chemical Reactions Happen- James Keeler (highly recommended by students)

	Websites
KS5	ACD ChemSketch free resource for drawing molecules.
KS3-5	Century Tech home learning resources free for duration of virus.
KS5	Chemguide A useful website for A level Chemistry. Provides an alternative 'teacher voice', mainly text.
ALL	The Chemistry Zone resources for students in all years currently free until August.
ALL	Educational Chemistry games
KS4-5	Female Scientists - 6 films about female scientists at different stages of their careers
ALL	Free Chemistry games/ challenges/experiments for children of all ages.
KS4	GCSE Bitesize Chemistry.
KS5	Gresham College Public Lectures in science
Yr12	In2Science - placements for Year 12 students at companies or universities
KS3-5	Interactive Periodic Table - Science - An interactive periodic table offering information on each of the elements, as well as historic and alchemic alternatives.
KS4-5	Isaac Chemistry - Chemistry - Online platform aimed at engaging GCSE and A-level students with Chemistry.
KS3-5	JCS online resources for home learning- extended free trial for duration of virus.
KS4-5	Khan Academy Chemistry GCSE and A Level.
KS3	KS3 Bitesize Chemistry.
KS5	The New Scientist news, articles, videos and podcast
KS5	Nrich maths resources for students intending to study Chemistry at university.
KS5	The Oxford Science blog
KS5	Oxford Sparks and online portal for engaging with scientific developments at Oxford University.

KS2-5	Explore.org - Oxford University website full of questions to promote thinking and discussion on a wide range of topics- create an account to access them all
KS4-5	Phet simulations simulations of chemistry experiments.
KS2-4	Planet 42 Chemistry games.
KS5	Isaac Chemistry GCSE and A Level Resources
KS4-5	RSC Analysis Resources A useful collection of resources focused on chemical analysis.
KS5	RSC Synthesis Explorer synthetic routes and study key organic chemistry reactions interactively with this resource.
KS3-5	Salter's Institute puzzles activities and challenges.
ALL	Science Museum - learning resources and games
KS4	Spark Notes revision resources – Chemistry.
KS2-3	Teaching Ideas –free Science resources
KS4-5	Things we don't know - Chemistry explains the questions that scientists are trying to answer.
KS4-5	Using a switchable rotaxane organocatalyst with two different active sites
	Radio/Podcasts/Videos/MOOCs
KS3-5	BBC Chemistry documentaries.
KS4-5	BBC Four in Our Time Chemistry podcasts.
KS3-5	BBC Science and Nature
KS5	Chemistry in the garden (Video).
KS4-5	Chemistry World podcasts.
KS3-5	Click View video material for remote learning- charges may apply.
KS5	Free Chemistry MOOCs
KS5	Future Learn free courses on topics like atmospheric chemistry, medicinal chemistry, etc. The courses are great to complete to mention in personal statements as well as general expansion of knowledge in terms of the applications of chemistry.
KS4-5	Listen Notes GCSE and A Level Chemistry Revision podcasts

KS5	NileRed NileBlue Periodic Videos You tube channels with fascinating chemistry experiments and information
KS4-5	Oxford University – Chemistry What's on? Events for schools and individual students
KS5	Oxford Research fuel cells inspired by nature.(Video)
KS5	Oxford Research turning an orange into a grapefruit.
KS4-5	Oxford University Chemistry podcasts.
KS5	Oxford University Springboard Videos 20 min introductions to different areas of research
KS4	Pod bean GCSE Chemistry Revision podcasts.
KS4-5	Podcasts focusing on interesting areas of Chemistry.
KS4-5	Royal Society of Chemistry periodic table podcast there are podcasts on every element in the periodic table.
ALL	Royal Society YouTube Channel curated by playlist, a whole set of engaging videos and clips.
KS4-5	SSERC - Chemistry YouTube channel - A number of useful chemistry videos provided by the Scottish Schools Education Research Centre.
KS4-5	Ted Talks- Chemistry
KS4-5	The Infinite Monkey Cage - comedy science podcast
KS4-5	The Naked Scientist Award winning radio show and podcasts
	Magazines and Journals
KS5	Chemistry World.
KS5	New Scientist Magazine
KS5	Royal Society of Chemistry - Education in Chemistry
KS5	Royal Society of Chemistry.
KS5	Science Daily - Inorganic Chemistry News Science Daily - Organic Chemistry News
KS5	The Scientist: Chemistry Although a subscription magazine, there are free newsletters and access to articles on the website.
	Competitions

Yr 12	Cambridge Chemistry Challenge . An excellent annual competition for students in Year 12 (and a great way to extend able Year 11). Past papers, mark schemes and commentaries available.
KS5	Chemistry Olympiad . - Although the 2020 Chemistry Olympiad has been cancelled, you can still test yourself by having a go at some of the past papers.
KS3-5	Oxford University Academic Competitions
KS3-5	The Big Bang Science Project - STEM competitions
ALL	Various including CREST Awards, Greenpower challenge and Chemistry Festivals.

Resources for teachers

Resource	Notes
Chemistry in Action	Video materials of study days.
CLEAPSS YouTube Channel	A large number of clips detailing practical work developed to support teachers. CLEAPSS suggest these can be used as demonstrations. For those with CLEAPSS membership (£), there is a guidance document (GL339) which provides descriptions and hyperlinks for specific clips.
Resourceaholic	Resources for teaching secondary school chemistry quiz.
Revision Buddies	Chemistry revision app- small charge applies
Science At School	European Journal for science teachers
Scottish Schools Education Research Centre - Chemistry resources	A range of resources for chemistry, recommended by the SSERC.
Scottish Schools Education Research Centre - Chemistry YouTube channel	A number of useful chemistry videos provided by the SSERC.
TES Chemistry	Resources for teachers, lesson plans and ideas for activities.
The British Science Association	STEM competitions- CREST and Youth Challenge British Science week

Resource	Notes
	Mass participation projects and more.
The Royal Society of Chemistry	Home learning resources for KS5.
The Royal Society of Chemistry Lectures	masterclasses/CPD