

Website resource list

Teachers and students may find the online resources below useful to deliver/study our new AS and A-level Chemistry course (7404/7405). This list isn't exhaustive and we are happy to add further resources.

Schemes of work resources

The [AS Chemistry: Scheme of Work](#) for Year 1 and the [A-level Chemistry: Scheme of Work](#) for Year 2 of A-level also contain links to many additional online resources for specific topic areas within the specifications, which you may find useful.

Ideas and support

- RSC Chemistry resources for teachers: [Learn Chemistry](#)
- S-cool, the revision website: [A Level Chemistry Revision](#)
- Chemguide: [Helping you to understand Chemistry](#)
- ChemGym: [Quizzes for learning and revising A level Chemistry](#)
- Twitter: [@ChemistryALevel](#)
- The Royal Society: [Invigorate](#)
- TES Connect: [Secondary teaching resources](#)

Resources for specific subject content

3.1.1 Atomic structure

- Chemguide: [Understanding Chemistry - Atomic Properties Menu](#)
- Vision Learning: [Chemistry | Early Ideas about Matter](#)
- YouTube: [Structure of the Atom 1: The Earliest Models](#)
- BBC: [History - Ancient History in depth: The Story of Carbon Dating](#)
- Astrobiology Magazine: [Mars: The Other Time-of-Flight](#)
- Chemguide: [Understanding Chemistry - Mass Spectrometry Menu](#)

3.1.2 Amount of substance

- Knockhardy Publishing: [Science](#)
- [Formulae and Equations quiz](#)
- Dr. Yue-Ling Wong's Science Education Tutorials and Practices: [Chemistry: Interactive Tutorial on Balancing Equations](#)
- [How can I balance an equation](#)
- [Creative Chemistry Balancing Equations](#)

- SchoolTube: [Balancing Chemical Equations](#)

3.1.3 Bonding

Chemguide: [Understanding Chemistry – Bonding Menu](#)

3.1.4 Energetics

Chemguide: [Understanding Chemistry - Energetics Menu](#)

3.1.5 Kinetics

Chemguide: [Understanding Chemistry - Kinetic Theory Menu](#)

3.1.6 Chemical equilibria, Le Chatelier's principle and K_c

Chemguide: [Understanding Chemistry - Chemical Equilibria Menu](#)

3.1.7 Oxidation, reduction and redox equations

Chemguide: [Understanding Chemistry - Redox Equilibria Menu](#)

3.1.8 Thermodynamics

Chemguide: [Understanding Chemistry - Energetics Menu](#)

3.1.9 Rate equations

Chemguide: [Understanding Chemistry - Rates of Reaction Menu](#)

3.1.10 Equilibrium constant K_p for homogeneous systems

Chemguide: [Understanding Chemistry - Chemical Equilibria Menu](#)

3.1.12 Acids and bases

Chemguide: [Understanding Chemistry - Acid-Base Equilibria Menu](#)

3.2.2 Group 2, the alkaline earth metals

Chemguide: [Understanding Chemistry - Periodic Table Group 2 Menu](#)

3.2.3 Group 7(17), the halogens

Chemguide: [Understanding Chemistry - Periodic Table Group 7 \(Halogens\) Menu](#)

3.2.5 Transition metals

Chemguide: [Understanding Chemistry - Transition Metals Menu](#)

3.2.6 Reactions of ions in aqueous solution

Chemguide: [Understanding Chemistry - Complex Ions Menu](#)

3.3.1 Introduction to organic chemistry

- Chemguide: [Understanding Chemistry – Organic Conventions Menu](#)
- Chemguide: [Understanding Chemistry – Isomerism Menu](#)

3.3.2 Alkanes

HowStuffWorks: [Chemical Processing | How Oil Refining Works](#)

3.3.3 Halogenoalkanes

Chemguide: [Understanding Chemistry – Halogenoalkanes Menu \(haloalkanes or alkyl halides\)](#)

3.3.4 Alkenes

Chemguide: [Understanding Chemistry – Alkenes Menu](#)

3.3.5 Alcohols

Chemguide: [Understanding Chemistry – Alcohols Menu](#)

3.3.6 Organic analysis

Chemguide: [Understanding Chemistry – Instrumental Analysis Menu](#)

3.3.7 Optical isomerism

Chemguide: [Understanding Chemistry – Optical Isomerism](#)

3.3.8 Aldehydes and ketones

Chemguide: [Understanding Chemistry – Aldehydes and Ketones Menu](#)

3.3.9 Carboxylic acids and derivatives

- Chemguide: [Understanding Chemistry – Carboxylic Acids Menu](#)
- Chemguide: [Understanding Chemistry – Acyl \(Acid\) Chlorides Menu](#)
- Chemguide: [Understanding Chemistry – Acid Anhydrides Menu](#)
- Chemguide: [Understanding Chemistry – Esters Menu](#)

3.3.10 Aromatic chemistry

Chemguide: [Understanding Chemistry – Arenes Menu](#)

3.3.11 Amines

Chemguide: [Understanding Chemistry – Aliphatic Amines Menu](#)

3.3.12 Polymers

- About.com: [The History of Polyester](#)
- [The Polyester Story](#)
- RSC Chemistry resources for teachers: [Alchemy – Nylon](#)
- The Macrogalleria: [Polymer Fun](#)

3.3.13 Amino acids, proteins and DNA

- New Scientist: [Space radiation may select amino acids for life](#)
- YouTube: [The Mechanism of Cisplatin](#)
- Cancer Research UK: [Cisplatin](#)
- Chemguide: [Understanding Chemistry – Amino Acids and Other Biochemistry Menu](#)

3.3.14 Organic synthesis

Chemguide: [Understanding Chemistry – Organic Mechanisms Menu](#)

3.3.15 Nuclear magnetic resonance spectroscopy

Chemguide: [Understanding Chemistry – NMR Menu](#)

3.3.16 Chromatography

Chemguide: [Understanding Chemistry – Chromatography Menu](#)