Supporting students of A-level Chemistry at Toot Hill College

Chemistry is the study of the material world, the way particles behave on their own and relative to other particles and students will learn how scientific methods and theories have developed over time plus appreciate the power and limitations of science, considering any ethical issues which may arise and the applications of chemistry within industry. The subject allows students to study a large variety of chemical processes with both a qualitative and quantitative approach and links to a variety of other subjects such as Biology, Physics, Maths and Geography.

**Department staff:**

Head of Subject and Lead Teacher of Year 12 & 13 – Miss C. Thompson – cthompson@toothillschool.co.uk

Teacher for Year 12 & 13 – Miss A. Birkin – abirkin@toothillschool.co.uk

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| Subject  | Exam board | Course title and code | Structure  | Key dates | Final exams |
| Chemistry | AQA | 7405 A Level Chemistry | Year 12Physical Chemistry:1. Atomic Structure
2. Amount of Substance
3. Bonding
4. Energetics
5. Kinetics and Redox
6. Equilibria

Inorganic Chemistry:1. Group 2 and 7 Chemistry
2. Periodicity

Organic Chemistry:1. Introduction to Organic Chemistry
2. Alkanes
3. Halogenoalkanes
4. Alkenes
5. Alcohols
6. Organic Analysis

Year 13:Physical Chemistry:1. Acids and Bases
2. Thermodynamics
3. Rate Equations
4. Kp and Partial Pressure
5. Electrochemistry

Inorganic Chemistry1. Transition Metals
2. Reactions of Ions in Aqueous Solution

Organic Chemistry1. Optical isomerism
2. Aldehydes and Ketones
3. Carboxylic Acids and their derivatives
4. Aromatic chemistry
5. Amines
6. Polymers
7. Amino acids, Proteins and DNA
8. NMR and Chromatography
9. Organic Synthesis
 | **Internal assessments:**Year 12 - November – 2 x 45 minute mock papers Year 12 June – full AS Level style exams consisting of 2 x 1 hour 30 minutes (Paper 1 and Paper 2)Year 13 – November – 2 x 1 hour 30 minutes (Paper 1 and Paper 2) with a mix of mainly year 12, and all year 13 content covered so far.Year 13 – March – A Level Paper 1 and Paper 2. 2 x 2 hour papers (completed in venues)Paper 3 (2 hours) mock completed in lesson | Year 13 June examsConfirmed (2024):**Paper 1 (Physical and Inorganic)** – 10th June 2024**Paper 2 (Physical and Organic)** – 18th June 2024**Paper 3 (Physical, Inorganic and Organic)** – 21st June 2024**Practical Endorsement (non exam)** – 15th May 2024 |

**Frequently asked questions**

1. Where can I find past papers and mark schemes?
* You can find all past paper questions, mark schemes and examiners reports here: <https://www.aqa.org.uk/subjects/science/as-and-a-level/chemistry-7404-7405/assessment-resources>
1. Does my student know where to access guidance when answering exam questions?
* The AQA website also has examiner reports that students will find useful in understanding common misconceptions: <https://www.aqa.org.uk/subjects/science/as-and-a-level/chemistry-7404-7405/assessment-resources>
* In class, we complete regular assessments and exam questions. Students have guidance on how to answer these exam questions in their assessment books which they can use as part of their revision in the atrium during private study time.
1. What happens if my student has gaps in their knowledge due to absence?
* All resources are also uploaded on to the files section of teams regularly. Students can catch up with any work if they are absent using these resources.
* Students can use useful websites such as A Level Chemistry (<https://www.a-levelchemistry.co.uk/aqa-a-level-chemistry.html>), Chem Guide (<https://www.chemguide.co.uk/>) and Seneca (<https://app.senecalearning.com/classroom/course/89dad2dd-9f68-460c-9247-131aea534bdb>)
* All students also have an UPLEARN account where they can watch summary videos, read key content and practice exam questions for all the topics in chemistry.
* If students are unsure, they can also ask their classroom teacher.
1. What resources are recommended to support my student?
* Textbooks and revision guides for chemistry which can be bought new or second hand from amazon. Students have been signposted to the books they are recommended to buy if they would like to.
* Revision lists and power points on the file’s sections of teams
* All students also have an UPLEARN account where they can watch summary videos, read key content and practice exam questions for all the topics in chemistry.
* Exam practice questions should be completed at home regularly to develop key exam skills.
1. What else can I do to support my student at home?
* Parents/carers could direct students to use their revision lists, or download exam practice questions from the AQA website.
* Parents/carers could also test their knowledge of key concepts by using flash cards.
* Parents/carers could encourage students to complete a number of hours of UPLEARN a week.
1. How can I help with revision?
* Encourage your student to access the revision homework tasks mentioned above. If you are able to take part in quizzing your student (if they have made flashcards or are using online quizzes), this will give them some variation to their revision and works well as a revision technique.
* Encouraging your student to focus on the areas of the courses that they feel less confident with will also be beneficial.
* Encourage students to complete a number of hours of UPLEARN a week.
1. What can I do if I need more support or my student is needing more support?
* Please contact classroom teacher or head of faculty to arrange a meeting and devise a structured revision plan.