

A-LEVEL CHEMISTRY

An outstanding A Level Chemistry student combines strong analytical thinking with a genuine curiosity about how substances behave and interact. They approach complex chemical ideas with persistence, linking theory to experimental evidence and focusing on understanding underlying concepts such as structure, bonding, energetics and reactivity rather than memorising facts. Such a student is well organised, practises calculations, equations and practical skills regularly, and reflects carefully on errors to improve accuracy and conceptual understanding. They communicate scientific ideas clearly using precise chemical language, show resilience when tackling unfamiliar reactions or data analysis, and actively seek opportunities to extend their learning beyond the syllabus through wider reading, practical investigation and real-world applications of chemistry.

Summary of course content

The Chemistry A-Level syllabus is split into three Papers:

Paper 1	Paper 2	Paper 3
<u>Inorganic and Physical</u>	<u>Organic and Physical</u>	<u>Practical and Synoptic</u>
Inorganic Chemistry - Periodicity - Group 2 - Group 7 - Period 3 elements & oxides - Transition Metals - Reactions of ions in aqueous solution Physical Chemistry - Atomic Structure - Amount of Substance - Bonding - Energetics - Equilibria, I_e Chat, K_c - Redox - Thermodynamics - Equilibria, K_p - Electrode potentials - Acids & Bases	Organic Chemistry - Alkanes - Halogenoalkanes - Alkenes - Alcohols - Organic Analysis - Optical Isomerism - Aldehydes & Ketones - Carboxylic Acids & derivatives - Aromatic chemistry - Amines - Polymers - Amino acids, proteins & DNA - Organic synthesis - NMR - Chromatography Physical Chemistry - Amount of Substance - Bonding - Energetics - Kinetics - Equilibria, I_e Chat, K_c - Rate equations	- Any topic - Practical skills questions

- Paper 1:** 2hrs long and worth 105 marks. Mixture of short / long answer questions.
- Paper 2:** 2hrs long and worth 105 marks. Mixture of short / long answer questions.
- Paper 3:** 2 hrs long and worth 90 marks. 40 marks on practical technique and data analysis. 20 marks short / long answer questions. 20 marks multiple-choice.

What you should be doing as an independent learner in your four hours of independent study per week?

Weekly:	- Use the lesson PowerPoints and the AQA textbook to ensure notes are up to date (available on Sharepoint) - Answer the summary questions in the AQA textbook that are linked to each lesson. Check the answers in the back of the book. - Make flashcards of key definitions and information.
Fortnightly:	Answer the end of chapter exam questions in the AQA textbook. Check the answers (on Sharepoint)
Half termly:	Practice past paper questions. PMT (link below) has an extensive library that are organised by topic. Ensure answers are checked.

Resources

In addition to those provided for specific tasks by your teacher, resources include:

- AQA A level Chemistry student textbook (Oxford) – digital version on Sharepoint, physical copy from Mr Foyle or Mr Davids.
- Scientific calculator
- <https://wessexmat.sharepoint.com> : to access lesson PowerPoints, digital textbook and other resources
- www.physicsandmathstutor.com: to access past exam papers

Independent learning overview

Two hours directed by each of your teachers (subject to change).

This is likely to be specific exam question practice related to the topics below.

Y12	Teacher 1	Teacher 2
07.09.26	Enrolment week	Enrolment week
14.09.26	1. Atomic Structure	11. Introduction to organic chemistry
21.09.26	1. Atomic Structure	11. Introduction to organic chemistry
28.09.26	1. Atomic Structure	12. Alkanes
05.10.26	8. Periodicity	12. Alkanes
12.10.26	8. Periodicity	12. Alkanes
19.10.26	2. Amount of substance	12. Alkanes
26.10.26	Half term	
02.11.26	2. Amount of substance	13. Halogenoalkanes
09.11.26	2. Amount of substance	13. Halogenoalkanes
16.11.26	2. Amount of substance	13. Halogenoalkanes
23.11.26	2. Amount of substance	3. Bonding
30.11.26	2. Amount of substance	3. Bonding
07.12.26	2. Amount of substance	3. Bonding
14.12.26	4. Energetics	3. Bonding
21.12.26	Christmas holidays	
28.12.26	Christmas holidays	
04.01.27	4. Energetics	3. Bonding
11.01.27	4. Energetics	3. Bonding
18.01.27	4. Energetics	5. Kinetics
25.01.27	14. Alkenes	5. Kinetics
01.02.27	Work experience	
08.02.27	14. Alkenes	6. Equilibria
15.02.27	Half term	
22.02.27	14. Alkenes	6. Equilibria
01.03.27	15. Alcohols	6. Equilibria
08.03.27	15. Alcohols	7. Oxidation, reduction and redox reactions
15.03.27	15. Alcohols	7. Oxidation, reduction and redox reactions
22.03.27	15. Alcohols	7. Oxidation, reduction and redox reactions
29.03.27	Easter holidays	
05.04.27	Easter holidays	

12.04.27	15. Alcohols	7. Oxidation, reduction and redox reactions
19.04.27	16. Organic analysis	10. Group 7 (17), the Halogens
26.04.27	16. Organic analysis	10. Group 7 (17), the Halogens
03.05.27	9. Group 2, the Alkaline Earth Metals	10. Group 7 (17), the Halogens
10.05.27	9. Group 2, the Alkaline Earth Metals	10. Group 7 (17), the Halogens
17.05.27	Paper 1 Revision	Paper 2 Revision
24.05.27	Paper 1 Revision	Paper 2 Revision
31.05.27	Half term	
07.06.27	Paper 1 Revision	Paper 2 Revision
14.06.27	Paper 1 Revision	Paper 2 Revision
21.06.27	Paper 1 Revision	Paper 2 Revision
28.06.27		
05.07.27		
12.07.27	32. Structure determination	27. Aromatic chemistry
19.07.27	32. Structure determination	27. Aromatic chemistry

Y13	Teacher 1	Teacher 2
07.09.26	25. Nomenclature and isomerism	17. Thermodynamics
14.09.26	25. Nomenclature and isomerism	17. Thermodynamics
21.09.26	25. Nomenclature and isomerism	17. Thermodynamics
28.09.26	26. Compounds containing the carbonyl group	17. Thermodynamics
05.10.26	26. Compounds containing the carbonyl group	17. Thermodynamics
12.10.26	26. Compounds containing the carbonyl group	18. Kinetics
19.10.26	26. Compounds containing the carbonyl group	18. Kinetics
26.10.26	Half term	
02.11.26	28. Amines	18. Kinetics
09.11.26	28. Amines	18. Kinetics
16.11.26	29. Polymerisation	18. Kinetics
23.11.26	29. Polymerisation	19. Equilibrium constant. Kp
30.11.26	30. Amino acids, proteins and DNA	21. Acids, bases and buffers
07.12.26	30. Amino acids, proteins and DNA	21. Acids, bases and buffers
14.12.26	31. Organic synthesis and analysis	21. Acids, bases and buffers
21.12.26	Christmas holidays	
28.12.26	Christmas holidays	
04.01.27	31. Organic synthesis and analysis	21. Acids, bases and buffers
11.01.27	33. Chromatography	21. Acids, bases and buffers
18.01.27	20. Electrode potentials and electrochemical cells	21. Acids, bases and buffers
25.01.27	20. Electrode potentials and electrochemical cells	23. the transition metals
01.02.27	20. Electrode potentials and electrochemical cells	23. the transition metals
08.02.27	20. Electrode potentials and electrochemical cells	23. the transition metals
15.02.27	Half term	
22.02.27		
01.03.27		
08.03.27	22. Periodicity	24. Reactions of inorganic compounds in aqueous solutions
15.03.27	22. Periodicity	24. Reactions of inorganic compounds in aqueous solutions
22.03.27	22. Periodicity	24. Reactions of inorganic compounds in aqueous solutions
29.03.27	Easter holidays	
05.04.27	Easter holidays	
12.04.27	Revision	Revision
19.04.27	Revision	Revision
26.04.27	Revision	Revision
03.05.27	Revision	Revision
10.05.27	Revision	Revision
17.05.27		
24.05.27		
31.05.27	Half term	
07.06.27		
14.06.27		
21.06.27		
28.06.27		
05.07.27		
12.07.27		
19.07.27		