



# Eastbrook School

## KS5 Curriculum Summary – Chemistry

Year 12 - Chemistry		
Autumn term	Spring term	Summer term
Topics	Topics	Topics
<p>Topic 1 – Atomic structure and the periodic table</p> <p>Topic 2 – Bonding and structure</p> <p>Topic 3 – Redox I</p> <p>Topic 4 - Inorganic chemistry and the periodic table</p> <p>Topic 5 – Inorganic equations and amounts of substance</p> <p>Assessment at the end of each topic.</p> <p>Mock Exam at the end of Term.</p>	<p>Topic 6.1- introduction to organic chemistry</p> <p>Topic 6.2 - Hydrocarbon: alkanes and alkenes</p> <p>Topic 6.3 - Halogenoalkanes and alcohols</p> <p>Topic 7 – Modern Analytical Techniques I</p> <p>Topic 8 – Energetics I</p> <p>Assessment at the end of each topic.</p>	<p>Topic 8 – Energetics I</p> <p>Topic 9 – Kinetics I</p> <p>Topic 10 – Equilibrium I</p> <p>Topic 11 – Equilibrium II</p> <p>Topic 13.1 Lattice Energy</p> <p>Assessment at the end of each topic.</p> <p>End of Year exam</p>
<p><b>Maths skills:</b> A minimum of 20% of the marks across all three papers is awarded for mathematics at level 2 and above. Maths operations; positive and negative numbers; Standard forms; Handling data; Ratios; Maths equations and expressions; Chemical equations; calculations using gas volumes; Calculations using solutions; percentage yields and atom economy; Graphs – experimental data; Maxwell-Boltzmann distribution and reaction profiles; Mass and infrared spectra; Geometry;</p> <p><b>Working scientifically:</b> Science Practical Endorsement – The practical skills is assessed by teachers throughout the course with using the core practical and other topic related practical activities. This does not count towards the A level grade but result (pass or fail) will be reported on A level certificate.</p>		
<b>Useful websites</b>		
<p><a href="http://www.bbc.com/bitesize">www.bbc.com/bitesize</a>      <a href="https://www.kerboodle.com/">https://www.kerboodle.com/</a>      <a href="https://ocr.org.uk/qualifications/past-papers">https://ocr.org.uk/qualifications/past-papers</a>  <a href="https://qualifications.pearson.com/en/support/support-topics/exams/past-papers.html">https://qualifications.pearson.com/en/support/support-topics/exams/past-papers.html</a>      <a href="https://www.chemguide.co.uk">https://www.chemguide.co.uk</a>      <a href="http://www.rsc.org/">http://www.rsc.org/</a></p>		
<b>Other ways to support learning</b>		
<p>Independent Learning – preparation and past paper practice</p> <p>Master lectures at IOE</p> <p>Text Book – Edexcel A level Chemistry 1&amp;2 -Hodder Education; Edexcel AS/A level Chemistry 1&amp;2 -Pearsons; George Facer Edexcel A level Chemistry.</p> <p>CGP Edexcel Revision guide.</p>		
<p><u><a href="#">A level Exam Paper</a></u></p> <p><u><a href="#">Paper 1 – Topic 1-5; 8 and 10-15</a></u>      <u><a href="#">Paper 2 – Topic 2-3; 5-7; 9 &amp; 16-19</a></u>      <u><a href="#">Paper 3 – Topic 1-19 (General and Practical principles in Chemistry)</a></u></p>		

## Year 13– Chemistry

Autumn term	Spring term	Summer term
Topics	Topics	Topics
<p><b>Topic 12 – Acid -base equilibria</b>  <b>Topic 13.2 – Entropy</b>  <b>Topic 14 - Redox II</b>  <b>Topic 15 – Transition metals</b>  <b>Topic 16 – Kinetics II</b>  <b>Topic 17.1 – Chirality</b>  <b>Topic 17.2 – Carbonyl compounds</b></p> <p><b>December Mock Exam</b></p>	<p>Topic 16 – Kinetics II  Topic 17.3 – Carboxylic Acids and their derivatives  Topic 18 – Arenes, Amines and Organic synthesis.  Topic 19 – Modern analytical techniques</p> <p>March Mock Exam  <u>Revision and exam practice</u>  <u>Topic 1-10 for paper 1/2</u></p>	<p><u>Revision and exam practice</u>  Topic 11-19 for paper 1-3  Core practical exam preparation.</p>

**Maths skills:** A minimum of 20% of the marks across all three papers is awarded for mathematics at level 2 and above. Maths operations; positive and negative numbers; Standard forms; Handling data; Ratios; Maths equations and expressions; Chemical equations; calculations using gas volumes; Calculations using solutions; percentage yields and atom economy; Graphs – experimental data; Maxwell-Boltzmann distribution and reaction profiles; Mass and infrared spectra; Geometry;

**Working scientifically:** Science Practical Endorsement – The practical skills is assessed by teachers throughout the course with using the core practical and other topic related practical activities. This does not count towards the A level grade but result (pass or fail) will be reported on A level certificate.

### Useful websites

[www.bbc.com/bitesize](http://www.bbc.com/bitesize)      <https://www.kerboodle.com/>      <https://ocr.org.uk/qualifications/past-papers>  
<https://qualifications.pearson.com/en/support/support-topics/exams/past-papers.html>      <https://www.chemguide.co.uk>      <http://www.rsc.org/>

### Other ways to support learning

Independent Learning – preparation and past paper practice  
Master lectures at IOE  
Text Book – Edexcel A level Chemistry 1&2 -Hodder Education; Edexcel AS/A level Chemistry 1&2 -Pearsons; George Facer Edexcel A level Chemistry.  
CGP Edexcel Revision guide.

### A level Exam Paper

Paper 1 – Topic 1-5; 8 and 10-15      Paper 2 – Topic 2-3; 5-7; 9 & 16-19      Paper 3 – Topic 1-19 (General and Practical principles in Chemistry)

