## Year 12

### Key Learning Constructs to be developed over the academic year

<table>
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<th>Assetment Pieces</th>
<th>Scheme of Learning Autumn Term</th>
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<tr>
<td>Acquiring knowledge and understanding of year 1 physical chemistry, inorganic chemistry and organic chemistry topics</td>
<td>Teacher 1  3.1.2 Amount of substance  3.1.4 Energetics  3.2.2 Group 2</td>
<td>Teacher 1  3.1.7 Oxidation, reduction and redox equations  3.1.5 Kinetics  3.1.9 Rate equations</td>
<td>Teacher 1  3.1.6 Chemical equilibria and Le Chatelier’s principle  3.1.10 Kp  3.3.10 Aromatic chemistry  3.3.11 amines</td>
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<tr>
<td>Teacher 2  3.1.1 Atomic structure + relevant  3.2.1 periodicity  3.1.3 Bonding + relevant 3.2.1 periodicity  3.2.4 properties of period 3 elements &amp; oxides</td>
<td>Teacher 2  3.3.1 Intro to organic chemistry  3.3.2 Alkanes  3.3.3 Haloalkanes  3.3.4 Alkenes  3.3.5 Alcohols</td>
<td>Teacher 2  3.3.6 Analysis  3.3.7 Isomerism  3.3.8 Aldehydes and ketones  3.3.9 Carboxylic acid derivatives</td>
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</tbody>
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### Assessment Pieces

- Assessments on: GCSE content required for A Level  Atomic structure  Amount of substance  Structure, bonding and periodicity  Group 2, halogens and redox  End of year exams

### Key vocabulary

Outside the taught curriculum

- Students can watch videos on the Khan Academy to further their understanding and find out explanations that are often more detailed than those covered in the taught curriculum.

### Suggested reading

- Chemguide- this website often breaks topics down very well and sometimes explains concepts in a greater depth than the taught curriculum.
- A Level Chemistry textbook
- A Level Chemistry Calculations by Jim Clark