

## 5070 O Level Chemistry Scheme of Work – Contents and Overview

**Recommended Prior Knowledge** Students should have followed an introductory course in science, such as ‘Checkpoint’. Basic mathematical requirements are listed in Appendix 1 of the current syllabus.

### Syllabus

(the syllabus is available as a downloadable .pdf file from this website)

### General Resources

See Appendix 3 of the current syllabus for advice on suppliers of the following books:

\*Chemistry by R. Harwood, Cambridge University Press (ISBN 0-52157628-8)

Chemistry for IGCSE by A. Clegg, Heinemann (ISBN 0-435-96675-8)

Chemistry Counts, G. Hill, Hodder and Stoughton (ISBN 0-340-63934-2)

Thinking Chemistry, (GCSE edition), Lewis and Waller, (ISBN 0-19-914247-2)

Chemistry, B. Earl and L. D. R. Wilford, John Murray, (ISBN 0-7195-5303-2)

\* This book is also available from Cambridge University Press In a Low Priced Edition (ISBN 0-521-66662-7) from their local distributors in Africa, The Caribbean, Bangladesh, Nepal, Pakistan and Sri Lanka.

### Websites for general use:

<http://www.thecatalyst.org/>

[www.webelements.com](http://www.webelements.com) NB: the scholar edition – [www.webelements.com/webelements/scholar/](http://www.webelements.com/webelements/scholar/)

[www.chemsoc.org/viselements](http://www.chemsoc.org/viselements)

[www.wpbschoolhouse.btinternet.co.uk/page10/page10.htm](http://www.wpbschoolhouse.btinternet.co.uk/page10/page10.htm)

[www.chemsoc.org/networks/learnnet](http://www.chemsoc.org/networks/learnnet)

[www.schoolscience.co.uk](http://www.schoolscience.co.uk)

[www.s-cool.co.uk/contents.asp](http://www.s-cool.co.uk/contents.asp)

[www.howstuffworks.com](http://www.howstuffworks.com)

[www.purchon.com/chemistry/index.htm](http://www.purchon.com/chemistry/index.htm)

[www.creativechemistry.co.uk](http://www.creativechemistry.co.uk)

## UNITS

1	Kinetic Theory and Atomic Structure
2	Periodic Table (including Ionic Bonding)
3	Organic Chemistry 1 (including Covalent Bonding, and Energy from Chemicals)
4	Atmosphere and Environment
5	Amount of substance
6	Metals and metal reactivity
7	Speed of Reaction
8	Acids, Bases and Salts (including Qualitative Analysis)
9	Electrolysis
10	Organic Chemistry 2

## TEACHING ORDER

The units may be taught in order, 1 to 10. This is not essential, but the following recommendations apply.

- It is recommended that **Unit 1** is taught as the first unit of the course.
- Other units that are suitable for teaching early in the course include **Units 2, 3 and 4**. Some of the ideas met in units 2 and 3 (e.g. ionic and covalent bonding) are revisited in Unit 4.
- Some units contain slightly more difficult concepts and so are suitable for teaching in the middle of the course. These include **Units 5, 6 and 7**. It is recommended that unit 5 is taught before units 6, 7 and 8 so that amount of substance calculations can be carried out by students in these units.
- Units that study the more difficult concepts, or rely on prior learning from earlier in the course, include **Units 8, 9 and 10**. Unit 10 must be taught after Unit 3.
- It is recommended that the teaching of some skills and concepts are ongoing across all units. These include the use of symbols, formulae, equations, calculations, ideas about redox, energy changes and chemical bonding and structure. The scheme of work highlights opportunities for consolidating these skills.