

## Chemistry Separate GCSE Revision

Revision Plan for both lessons and home.

If you follow this plan, you will be covering the same material in class as you will be revising at home. This will enable you to bring in your questions and discuss them in class.

| week<br>countdown | Week starting | Topics covered                               |
|-------------------|---------------|--|
| 14                | Mon-15-Jan-18 | See attached Contents page of revision guide |
| 13                | Mon-22-Jan-18 |  |
| 12                | Mon-29-Jan-18 |  |
| 11                | Mon-05-Feb-18 |  |
| Hol               | Mon-12-Feb-18 |  |
| 10                | Mon-19-Feb-18 |  |
| 9                 | Mon-26-Feb-18 |  |
| 8                 | Mon-05-Mar-18 |  |
| 7                 | Mon-12-Mar-18 |  |
| 6                 | Mon-19-Mar-18 |  |
| 5                 | Mon-26-Mar-18 |  |
| Hol               | Mon-02-Apr-18 |  |
|                   | Mon-09-Apr-18 |  |
| 4                 | Mon-16-Apr-18 |  |
| 3                 | Mon-23-Apr-18 |  |
| 2                 | Mon-30-Apr-18 |  |
| 1                 | Mon-07-May-18 |  |

|            |   |
|------------|---|
| 14/05/2018 | Bio 1 (15/05), Chem 1 (17/05)                 |
| 21/05/2018 | Phys 1 (23/05)                                |
| 28/05/2018 | Half-term                                     |
| 04/06/2018 |   |
| 11/06/2018 | Bio 2 (11/06), Chem 2 (13/06), Phys 2 (15/06) |

Count down week

# Contents



|                                      |  |   |  |  |   |
|--------------------------------------|--|---|--|--|---|
| <b>CORE</b>                          |  | 40  | Making insoluble salts                   | 79   | Core practical –                              |
| 1                                    | Formulae, equations and hazards                | 41  | Extended response –                      | w1   | Investigating rates                           |
| 2                                    | Formulae                                       | 41  | Making salts                             | 4  | Exam skills – Rates of reaction               |
| 3                                    | Equations                                      | 42  | Electrolysis                             | 81   | Heat energy changes                           |
| 4                                    | Ionic equations                                | 43  | Electrolysing solutions                  | 82   | Reaction profiles                             |
| 5                                    | Hazards, risks and precautions                 | 44  | Core practical                           | 83   | Calculating energy changes                    |
| <b>PAPERS 1 &amp; 2</b>              |  | 45  | Investigating electrolysis               | <b>Fuels and Earth science</b>   |   |
| <b>Key concepts in chemistry</b>     |  | 45  | Extended response –                      | 84   | Crude oil                                     |
| w1                                   | 5 Atomic structure                             | <b>Extracting metals and equilibria</b>     |  | w2   | 85 Fractional distillation                    |
| 6                                    | Isotopes                                       | 46  | The reactivity series                    | 86   | Alkanes                                       |
| 14                                   | 7 Mendeleev's table                            | w1  | 47 Metal displacement reactions          | 3  | 87 Incomplete combustion                      |
| 8                                    | 8 The periodic table                           | 48  | Explaining metal reactivity              | 88   | Acid rain                                     |
| 9                                    | 9 Electronic configurations                    | 49  | Metal ores                               | 89   | Choosing fuels                                |
| 10                                   | 10 Ions  | 50  | Iron and aluminium                       | 90   | Cracking                                      |
| 11                                   | 11 Formulae of ionic compounds                 | 51  | Biological metal extraction              | 91   | Extended response – Fuels                     |
| w2                                   | 12 Properties of ionic compounds               | 52  | Recycling metals                         | 92   | The early atmosphere                          |
| 13                                   | 13 Covalent bonds                              | 53  | Life-cycle assessments                   | 93   | Greenhouse effect                             |
| 14                                   | 14 Simple molecular substances                 | 54  | Extended response – Reactivity of metals | 94   | Extended response – Atmospheric science       |
| 15                                   | 15 Giant molecular substances                  | <b>Separate chemistry 1</b>                 |  | <b>Separate chemistry 2</b>  |   |
| w1                                   | 16 Other large molecules                       | 55  | Transition metals                        | w1   | 95 Tests for metal ions                       |
| 17                                   | 17 Metals                                      | w2  | 56 Rusting                               | 96   | More tests for ions                           |
| 12                                   | 18 Limitations of models                       | 57  | Alloys                                   | 97   | Instrumental methods                          |
| 19                                   | 19 Relative formula mass                       | 58  | Extended response – Alloys and corrosion | 2  | 98 Extended response – Tests for ions         |
| 20                                   | 20 Empirical formulae                          | 59  | Core practical – Accurate titrations     | 99   | More about alkanes                            |
| 21                                   | 21 Conservation of mass                        | 60  | Concentration calculations               | 100  | Alkenes                                       |
| 22                                   | 22 Reacting mass calculations                  | 61  | Titration calculations                   | 101  | Addition polymers                             |
| w2                                   | 23 Concentration of solution                   | 62  | Percentage yield                         | 102  | Condensation polymers                         |
| 24                                   | 24 Avogadro's constant and moles               | 63  | Atom economy                             | 103  | Biological polymers                           |
| 11                                   | 25 Extended response – Types of substance      | w1  | 64 Molar gas volume                      | w2   | 104 Polymer problems                          |
| <b>PAPER 1</b>                       |  | 65  | Gas calculations                         | 105  | Extended response – Hydrocarbons and polymers |
| <b>States of matter and mixtures</b> |  | 66  | Exam skills – Chemical calculations      | 1  | 106 Alcohols                                  |
| w1                                   | 26 States of matter                            | 67  | The Haber process                        | 107  | Making ethanol                                |
| 27                                   | 27 Pure substances and mixtures                | 68  | More about equilibria                    | 108  | Carboxylic acids                              |
| 28                                   | 28 Distillation                                | 69  | Making fertilisers                       | 109  | Core practical – Investigating combustion     |
| 10                                   | 29 Filtration and crystallisation              | 70  | Fuel cells                               | 110  | Nanoparticles                                 |
| 30                                   | 30 Paper chromatography                        | 71  | Extended response – Reversible reactions | 111  | Bulk materials                                |
| 31                                   | 31 Core practical – Investigating inks         | <b>PAPER 2</b>                              |  | 112  | Extended response – Materials                 |
| 32                                   | 32 Drinking water                              | w2  | <b>Groups in the periodic table</b>      | 113  | Answers                                       |
| 33                                   | 33 Extended response – Separating mixtures     | 72  | The alkali metals                        | 124  | The Periodic Table of the Elements            |
| <b>Chemical changes</b>              |  | 73  | The halogens                             | <b>A small bit of small print:</b>   |   |
| w2                                   | 34 Acids and alkalis                           | 74  | Reactions of halogens                    | Edexcel publishes Sample Assessment Material and the Specification on its website. This is the official content and this book should be used in conjunction with it. The questions in Now try this have been written to help you practise every topic in the book. Remember: the real exam questions may not look like this. |   |
| 35                                   | 35 Strong and weak acids                       | 75  | Halogen displacement reactions           |  |   |
| 36                                   | 36 Bases and alkalis                           | 76  | The noble gases                          |  |   |
| 9                                    | 37 Core practical – Neutralisation             | 77  | Extended response – Groups               |  |   |
| 38                                   | 38 Core practical – Salts from insoluble bases | <b>Rates of reaction and energy changes</b> |  |  |   |
| 39                                   | 39 Salts from soluble bases                    | 78  | Rates of reaction                        |  |   |