

## SCIENCE CURRICULUM OVERVIEW 2020-21

|  | Autumn Term 1   | Autumn Term 2   | Spring Term 1   | Spring Term 2   | Summer Term   | Summer Term 2   |
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| YEAR 7                                 | Intro to Science (CSI Lab skills)<br>Chemistry: The Particle Model<br>Biology: Cells, tissues, organs and systems               | Physics: Forces<br>Biology: Sexual reproduction in animals  | Chemistry: Mixtures and Separation<br>Physics: Current Electricity  | Biology: Muscles and Bones<br>Chemistry: Atoms, Elements and Molecules  | Physics: Energy<br>Biology: Ecosystems  | Chemistry: Acids and Alkalis<br>Physics: Sound  |
| YEAR 8 (2020-2021)                     | 'Hollywood'<br>Physics: Forces and Energy   | 'Hollywood'<br>Physics: Light and Sound   | 'Olympics'<br>Biology: Life Processes   | 'Olympics'<br>Chemistry: Metals   | 'Superheroes'<br>Chemistry: Chemical Reactions  | 'Superheroes'<br>Physics: Electricity   |
| YEAR 8 (2021-2022)                     | Intro to Science (Current Affairs)<br>Biology: Food and Nutrition<br>Chemistry: Combustion                                      | Physics: Light<br>Chemistry: The periodic table   | Biology: Unicellular Organisms & Genetics/Evolution<br>Physics: Earth and Space                               | Biology: Breathing and Respiration<br>Chemistry: Metals and their Uses & Reactivity                               | Physics: Fluids<br>Biology: Plants and their reproduction   | Chemistry: Rocks & Making Materials<br>Physics: Energy Transfers                                  |
| Year 9                                 | Transition from KS3 to KS4:<br>Introductory Lesson<br>Year 8 Review<br>Year 9 Transition module<br><b>Base line Assessment.</b> | B: Chapter 1: Key Concepts<br>C: Chapter 3-4: Atomic Structure and the Periodic Table<br>P: Chapter 3: Energy | B: Chapter 1: Key Concepts<br>C: Chapter 3-4: Atomic Structure and the Periodic Table<br>P: Chapter 3: Energy | B: Chapter 2: Cells and Control<br>C: Chapter 3-4: Atomic Structure and the Periodic Table<br>P: Chapter 4: Waves | B: Chapter 2: Cells and Control<br>C: Chapter 1-2: States of Matter<br>P: Chapter 4: Waves and start Chapter 5: Light | B: Chapter 2: Cells and Control<br>C: Chapter 1-2: States of Matter<br>P: Chapter 5: Finish Light |
| <b>YEAR 10 Biology-Separate/Higher</b> | Review health and disease Chapter 5   | Continue with Chapter 4: Natural Selection  | Chapter 6: Plants and their Functions   | Chapter 8: Exchange and Transport   | Chapter 9: Material Cycles  | Chapter 9: Ecosystems   |

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|   | Chapter 4: Natural Selection  |   |   |  |  |   |
| <b>YEAR 10 Chemistry</b><br>Separate/Higher     | Chapter 5-7:<br>Bonding -review   | Chapter 8:<br>Acids and Alkalis   | Chapter 9:<br>Calculations<br>involving Masses<br><br>Chapter 17-19:<br>Groups in the<br>Periodic Table,<br><br>Rates of Reactions<br>& Energy Changes        | Continue Chapter<br>17-19: Groups in<br>the Periodic Table.<br><br>Rates of Reactions<br>& Energy Changes<br>Continued | Chapter 25-26:<br>Qualitative Analysis<br>(separate only)    | Chapter 20-21: Fuels,<br>Earth and Atmospheric<br>Science |
| <b>YEAR 10 Physics</b><br>Separate/Higher       | Chapter 1 & 2:<br>Motion and Forces<br>Review                                 | Chapter 1 & 2<br>continued<br><br>Chapter 7:<br>Astronomy (SEP<br>only) | Chapter 7<br>Continued (SEP<br>only)<br><br>Chapter 8-9:<br>Energy and Forces   | Chapter 8-9:<br>Energy and Forces<br>continued   | Chapter 14: Particle<br>Model                                | Chapter 15: Forces and<br>Matter                          |
| <b>Year 10 Biology</b><br>Combined/Foundation   | Review health and<br>disease Chapter 5<br><br>Chapter 4: Natural<br>Selection | Continue with<br>chapter 4: Natural<br>Selection                        | Chapter 6: Plants<br>and their Functions  | Chapter 8:<br>Exchange and<br>Transport  | Chapter 9: Material<br>Cycles                                | Chapter 9: Ecosystems                                     |
| <b>YEAR 10 Chemistry</b><br>Combined/Foundation | Chapter 5-7:<br>Bonding review  | Chapter 8:<br>Acids and Alkalis   | Chapter 9:<br>Calculations<br>involving Masses<br>(4)<br><br>Chapter 17-19:<br>Groups in the<br>Periodic Table,<br><br>Rates of Reactions<br>& Energy Changes | Continue Chapter<br>17-19: Groups in<br>the Periodic Table.<br><br>Rates of Reactions<br>& Energy Changes<br>Continued | Chapter 20-21:<br>Fuels, Earth and<br>Atmospheric<br>Science | Review topics- Revision                                   |
| <b>YEAR 10 Physics</b><br>Combined/Foundation   | Chapter 1 & 2:<br>Motion and Forces   | Chapter 1 & 2<br>continued  | Chapter 8-9:<br>Energy and Forces   | Chapter 14:<br>Particle Model  | Chapter 15: Forces<br>and Matter                             | Review topics- Revision                                   |

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| <b>Year 10 ENTRY LEVEL</b>                  | Cell, genetics, inheritance<br>Atoms, compounds, states<br>Forces, Movement, energy | Health, disease, medicines<br>Mixtures, acids and metals<br>Waves and radiation | Complete papers<br>Catch up- natural selection, bonding, acids and alkalis, motion and forces<br>Bio Ch 6 Plants and their functions | Bio: Ch 8<br>Chem: Ch 9 and 17-19<br>Phys: Ch 8-9 | Bio: Ch 9<br>Chem: Ch 20-21<br>Phys: Ch 14-15 | Review topics- Revision |
| <b>YEAR 11 Biology</b><br>Separate/Higher   | Chapter 3: Genetics   | Continue with Chapter 3: Genetics<br>Chapter 7: Control and Homeostasis         | Year 11 Mocks.<br>Continue with Chapter 7: Control and Homeostasis   | Revision  | GCSE Exams                                    | GCSE Exams              |
| <b>YEAR 11 Chemistry</b><br>Separate/Higher | Chapter 22-24: Hydrocarbons   | Chapter 10-13: Electrolytic Processes   | Year 11 Mocks  | Chapter 14-16: Quantitative Analysis<br>Revision  | GCSE Exams                                    | GCSE Exams              |
| <b>YEAR 11 Physics</b><br>Separate/ Higher  | Chapter 6 Radioactivity   | Chapter 10-11: Electricity<br>Chapter 12-13: Magnetism                          | Year 11 Mocks.<br>Complete Chapter 10-11: Electricity<br>Chapter 12-13: Magnetism  | Chapter 14-15- Particles and Density Revision     | GCSE Exams                                    | GCSE Exams              |
| <b>YEAR 11 Biology</b><br>Combined          | Chapter 3: Genetics   | Continue with Chapter 3: Genetics<br>Chapter 7: Control and Homeostasis         | Year 11 Mocks.<br>Continue with Chapter 7: Control and Homeostasis   | Revision  | GCSE Exams                                    | GCSE Exams              |
| <b>YEAR 11 Chemistry</b><br>Combined        | Chapter 10-13: Electrolytic Processes   | Revision  | Year 11 Mocks  | Revision  | GCSE Exams                                    | GCSE Exams              |

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| <b>YEAR 11 Physics Combined</b>              | Chapter 6<br>Radioactivity                       | Chapter 10-11:<br>Electricity<br>Chapter 12-13:<br>Magnetism                     | Year 11 Mocks.<br>Complete Chapter<br>10-11: Electricity<br>Chapter 12-13:<br>Magnetism | Chapter 14-15-<br>Quantitative<br>Analysis<br>Revision | GCSE Exams | GCSE Exams |
| <b>YEAR 11 Biology Combined Foundation</b>   | Chapter 3: Genetics                              | Continue with<br>Chapter 3:<br>Genetics<br>Chapter 7: Control<br>and Homeostasis | Year 11 Mocks.<br>Continue with<br>Chapter 7: Control<br>and Homeostasis                | Revision   | GCSE Exams | GCSE Exams |
| <b>YEAR 11 Chemistry Combined Foundation</b> | Chapters 20-21<br>Fuels, Earth and<br>Atmosphere | Chapter 10-13:<br>Electrolytic<br>Processes                                      | Year 11 Mocks   | Revision   | GCSE Exams | GCSE Exams |
| <b>YEAR 11 Physics Combined Foundation</b>   | Chapter 6<br>Radioactivity                       | Chapter 10-11:<br>Electricity<br>Chapter 12-13:<br>Magnetism                     | Year 11 Mocks.<br>Complete Chapter<br>10-11: Electricity<br>Chapter 12-13:<br>Magnetism | Chapter 14-15<br>Quantitative<br>Analysis<br>Revision  | GCSE Exams | GCSE Exams |