



## CURRICULUM MAP – Year 10 GCSE Combined Science

Mastering qualifications Year 10 Term Autumn 12 weeks	Mastering qualifications Year 10 Term Spring 10 weeks	Mastering qualifications Year 10 Term Summer 14 weeks
<p><b>KS4 NC: Health, disease and the development of medicines</b>  <b>B4 - Organising animals and plants</b>  <b>B5 - Communicable diseases</b>  <b>B6 - Preventing and treating diseases</b>  <b>KS4 NC: Chemical changes and Energy changes in chemistry</b>  <b>C4 - Chemical calculations</b>  <b>C5 - Chemical changes</b>  <b>KS4 NC: Electricity</b>  <b>P4 - Electrical circuits</b>  <b>P5 - Electricity in the home</b>  <b>KS3 NC Content links: Health, Nutrition and digestion, atoms, elements and compounds, chemical reactions, current electricity</b>  <b>KS3 NC: Working Scientifically</b>  <b>Scientific attitudes, experimental skills and investigations, analysis and evaluation, measurements</b>  <b>Assessment objectives: AO1, AO2, AO3</b>  <b>Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature)</b>  <b>Required Practical: Making salts, Resistance, I-V characteristics</b></p> <p><b>Literacy foci</b>            Reading skills, Comprehension skills, Science glossary of terms, Writing skills</p> <p><b>Numeracy foci</b>            Arithmetic and numerical computation, Handling data, Algebra, Graphs</p> <p><b>Homework</b>            Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions</p> <p><b>Revisiting, revising, remembering opportunities</b>            KS4 DO NOW starter activities, Exam question starters from previous topics            One week revising and teaching students how to revise before EOC assessment</p> <p><b>Enrichment/life and work skills:</b>            Group work/collaboration, research skills, public speaking, empathy, cultural awareness</p> <p><b>SMSC</b>  <b>Learning about ourselves and how we function or life around us and how it functions alongside the impacts of our interactions with this life, The use of animals in testing for medical advances and when this can be acceptable, the publication by a doctor that the MMR vaccine is linked to autism without rigorous scientific testing and the implications of this on the health of a generation of children in the UK.</b></p> <p><b>Assessments:</b>            End of chapter tests, Exam chapter examination homework questions</p> <p><b>Reports to parents :</b></p>	<p><b>KS4 NC: Health, disease and the development of medicines and Photosynthesis</b>  <b>B7 - Non- communicable diseases</b>  <b>B8 - Photosynthesis</b>  <b>KS4 NC: Chemical changes and Energy changes in chemistry</b>  <b>C6 - Electrolysis</b>  <b>C7 - Energy changes</b>  <b>KS4 NC: The structure of matter, Atomic structure</b>  <b>P6 - Molecules and matter</b>  <b>P7 - Radioactivity</b>  <b>KS3 NC Content links: Health, nutrition and digestion, photosynthesis, energetics, physical changes, particle model, energy in matter</b>  <b>KS3 NC: Working Scientifically</b>  <b>Scientific attitudes, experimental skills and investigations, analysis and evaluation, measurements</b>  <b>Assessment objectives: AO1, AO2, AO3</b>  <b>Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature)</b>  <b>Required practical: Photosynthesis, Electrolysis, Temperature changes, Density</b></p> <p><b>Literacy foci</b>            Reading skills, Comprehension skills, Science glossary of terms, Writing skills</p> <p><b>Numeracy foci</b>            Arithmetic and numerical computation, Handling data, Algebra, Graphs</p> <p><b>Homework</b>            Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions</p> <p><b>Revisiting, revising, remembering opportunities</b>            KS4 DO NOW starter activities, Exam question starters from previous topics            One week revising and teaching students how to revise before EOC assessment</p> <p><b>Enrichment/life and work skills:</b>            Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness</p> <p><b>SMSC</b>  <b>The impact of diet, exercise and drugs on our health.</b></p> <p><b>Assessments:</b>            End of chapter tests, Exam chapter examination homework questions</p> <p><b>Reports to parents :</b></p>	<p><b>KS4 NC: Cell Biology, Coordination and control</b>  <b>B9 - Respiration</b>  <b>B10 - The human nervous system</b>  <b>KS4 NC: Rate and extent of chemical change</b>  <b>C8 - Rates and equilibrium</b>  <b>KS4 NC: Forces and motion</b>  <b>P8 - Forces in balance</b>  <b>P9 – Motion</b>  <b>KS3 NC Content links: cellular respiration, the skeletal and muscular systems, chemical reactions, Balanced forces</b>  <b>KS3 NC: Working Scientifically</b>  <b>Scientific attitudes, experimental skills and investigations, analysis and evaluation, measurements</b>  <b>Assessment objectives: AO1, AO2, AO3</b>  <b>Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature)</b>  <b>Required practical: Rates of reaction</b></p> <p><b>Literacy foci</b>            Reading skills, Comprehension skills, Science glossary of terms, Writing skills</p> <p><b>Numeracy foci</b>            Arithmetic and numerical computation, Handling data, Algebra, Graphs</p> <p><b>Homework</b>            Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions</p> <p><b>Revisiting, revising, remembering opportunities</b>            KS4 DO NOW starter activities, Exam question starters from previous topics            One week revising and teaching students how to revise before EOC assessment</p> <p><b>Enrichment/life and work skills:</b>            Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness</p> <p><b>SMSC</b>  <b>Learning about ourselves and how we function: Nerves and Hormones, Respiration and Exercise,</b></p> <p><b>Assessments:</b>            End of chapter tests, Exam chapter examination homework questions</p> <p><b>Paper 1 Biology- 1hr</b>  <b>Paper 1 Chemistry– 1hr</b>  <b>Paper 1 Physics – 1hr</b>  <b>Year 10 End of year exams (Monday 20th June to Friday 1st July)</b>  <b>Reports to parents : Year 10 Parents Evening (Thursday 5th May)</b></p>

*The progressive, inclusive curriculum ‘skills, knowledge and concepts: literacy, life skills and enrichment’*



## CURRICULUM MAP – Year 11 GCSE Combined Science

Mastering qualifications Year 11 Term - Autumn 12 weeks	Mastering qualifications Year 11 Term - Spring 11 weeks	Mastering qualifications Year 11 Term - Summer 4 weeks
<p><b>KS4 NC: Cell Biology, Coordination and control</b></p> <p><b>B10 - The human nervous system – Recovery from Year 10</b></p> <p><b>B11 - Hormonal control in human and plants</b></p> <p><b>B12 – Reproduction</b></p> <p><b>B13 - Variation and evolution</b></p> <p><b>KS4 NC: Chemical and allied industries, Chemical analysis</b></p> <p><b>C8 - Rates and equilibrium – Recovery from year 10</b></p> <p><b>C9 - Crude oil and fuels</b></p> <p><b>KS4 NC: Forces and motion, wave motion</b></p> <p><b>P8 - Forces in balance- Recovery from Year 10</b></p> <p><b>P9 – Motion</b></p> <p><b>P10 - Force and motion</b></p> <p><b>KS3 NC Content links: The skeletal and muscular system, Reproduction, materials, pure and impure substances, describing motion, observed waves,</b></p> <p><b>KS3 NC: Working Scientifically</b></p> <ul style="list-style-type: none"> <li>• Scientific attitudes</li> <li>• Experimental skills and investigations</li> <li>• Analysis and evaluation</li> <li>• Measurements</li> </ul> <p><b>Assessment objectives: AO1, AO2, AO3</b></p> <p><b>Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature)</b></p> <p><b>Required Practical: Reaction time, Chromatography, Acceleration, Force and extension</b></p> <p><b>Literacy foci</b> Reading skills, Comprehension skills, Science glossary of terms, Writing skills</p> <p><b>Numeracy foci</b> Arithmetic and numerical computation, Handling data, Algebra, Graphs</p> <p><b>Homework</b> Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions</p> <p><b>Revisiting, revising, remembering opportunities</b> KS4 DO NOW starter activities, Exam question starters from previous topics, one week revising and teaching students how to revise before EOC assessment, period 6</p> <p><b>Enrichment/life and work skills:</b> Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness</p> <p><b>SMSC</b></p> <p><b>Learning about ourselves and how we function: kidney functions, thermoregulation and heart beat to control the internal conditions, contraceptive hormone treatments and consider the positives and negatives of this on health. Investigating stopping distances and factors that affect these in relation to driving cars unsafely, the thalidomide drug and how it was used without correct testing and the consequences of this,</b></p> <p><b>Assessments:</b> End of chapter tests Years 11 (Monday 8th November to Friday 19th November) Reports to parents : Post-16 Open Evening (TBC) Year 11 Parents Evening 1– Thursday 9th December</p>	<p><b>KS4 NC: Evolution, inheritance and variation, ecosystems</b></p> <p><b>B14 – Genetics and evolution</b></p> <p><b>B15 - Adaptions, interdependence and competition</b></p> <p><b>B16 - Organising an ecosystem</b></p> <p><b>B17 - Biodiversity and ecosystems</b></p> <p><b>KS4 NC: Earth and atmospheric science</b></p> <p><b>C10 - Chemical analysis</b></p> <p><b>C11 - The Earth’s atmosphere</b></p> <p><b>C12 - The Earth’s resources</b></p> <p><b>KS4 NC: Wave motion, Magnetism and electromagnetism</b></p> <p><b>P11 - Wave properties</b></p> <p><b>P12 - Electromagnetic waves</b></p> <p><b>P13 - Electromagnetism</b></p> <p><b>KS3 NC Content links inheritance, chromosomes, DNA and genes, relationships un an ecosystem, earth and atmosphere, Energy and waves, static electricity, magnetism</b></p> <p><b>KS3 NC: Working Scientifically</b></p> <ul style="list-style-type: none"> <li>• Scientific attitudes</li> <li>• Experimental skills and investigations</li> <li>• Analysis and evaluation</li> <li>• Measurements</li> </ul> <p><b>Assessment objectives: AO1, AO2, AO3</b></p> <p><b>Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature)</b></p> <p><b>Required Practical: Field investigations, Water purification, Waves, Radiation and absorption</b></p> <p><b>Literacy foci</b> Reading skills, Comprehension skills, Science glossary of terms, Writing skills</p> <p><b>Numeracy foci</b> Arithmetic and numerical computation, Handling data, Algebra, Graphs</p> <p><b>Homework</b> Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions</p> <p><b>Revisiting, revising, remembering opportunities</b> KS4 DO NOW starter activities, Exam question starters from previous topics, one week revising and teaching students how to revise before EOC assessment, period 6</p> <p><b>Enrichment/life and work skills:</b> Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness</p> <p><b>SMSC</b></p> <p><b>Learning about ourselves and how we function: Genetics, consider the impact of multiple chemical and industrial processes on the environment - including the combustion of hydrocarbons and the impacts of global warming and acid rain on the environment. the production of ammonia during the Haber process and usage of excessive fertilisers on food chains are considered in detail.</b></p> <p><b>Assessments:</b> End of chapter tests PPE2 – Years 11 (Monday 28th February to Friday 11th March) Reports to parents :Year 11 Parents Evening 2 (Thursday 31st March)</p>	<ul style="list-style-type: none"> <li>• Paper 1 revision for Biology, Chemistry and Physics</li> <li>• Paper 2 revision for Biology, Chemistry and Physics</li> </ul> <p><b>Assessment objectives: AO1, AO2, AO3</b></p> <p><b>Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature)</b></p> <p><b>KS3 NC: Working Scientifically</b></p> <ul style="list-style-type: none"> <li>• Scientific attitudes</li> <li>• Experimental skills and investigations</li> <li>• Analysis and evaluation</li> <li>• Measurements</li> </ul> <p><b>Required Practical: Revision of all practicals encountered within the GCSE, with a focus on writing the methods.</b></p> <p><b>Literacy foci</b> Reading skills, Comprehension skills, Science glossary of terms, Writing skills</p> <p><b>Numeracy foci</b> Arithmetic and numerical computation, Handling data, Algebra, Graphs</p> <p><b>Homework</b> Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions</p> <p><b>Revisiting, revising, remembering opportunities</b> KS4 DO NOW starter activities, Exam question starters from previous topics, one week revising and teaching students how to revise before EOC assessment, period 6</p> <p><b>Enrichment/life and work skills:</b> Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness</p> <p><b>SMSC</b></p> <p><b>Revision of all the elements that have been encountered during the GCSE course.</b></p> <p><b>Assessments:</b> Kerboodle End of Paper 2 test Walking talking mock</p>

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