



CURRICULUM MAP – Year 10 GCSE Combined Science

Mastering qualifications Year 10 Term Autumn 14 weeks	Mastering qualifications Year 10 Term Spring 12 weeks	Mastering qualifications Year 10 Term Summer 14 weeks
<p>KS4 NC: Health, disease and the development of medicines</p> <p>B4 - Organising animals and plants B5 - Communicable diseases B6 - Preventing and treating diseases KS4 NC: Chemical changes and Energy changes in chemistry C4 - Chemical calculations C5 - Chemical changes KS4 NC: Electricity P4 - Electrical circuits P5 - Electricity in the home KS3 NC Content links: Health, Nutrition and digestion, atoms, elements and compounds, chemical reactions, current electricity KS3 NC: Working Scientifically Scientific attitudes, experimental skills and investigations, analysis and evaluation, measurements Assessment objectives: AO1, AO2, AO3 Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature) Required Practical: Making salts, Resistance, I-V characteristics Literacy foci Reading skills, Comprehension skills, Science glossary of terms, Writing skills Numeracy foci Arithmetic and numerical computation, Handling data, Algebra, Graphs Homework Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions Revisiting, revising, remembering opportunities KS4 DO NOW starter activities, Exam question starters from previous topics One week revising and teaching students how to revise before EOC assessment Enrichment/life and work skills: Group work/collaboration, research skills, public speaking, empathy, cultural awareness SMSC 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. Assessments: End of chapter tests, Exam chapter examination homework questions Reports to parents</p> <p>Extra -Curricular opportunities and Trips:</p> <ul style="list-style-type: none"> Virtual science club –via TEAMS Aspiring Scientist Inter-house and Inter school competitions 	<p>KS4 NC: Health, disease and the development of medicines and Photosynthesis</p> <p>B7 - Non- communicable diseases B8 - Photosynthesis KS4 NC: Chemical changes and Energy changes in chemistry C6 - Electrolysis C7 - Energy changes KS4 NC: The structure of matter, Atomic structure P6 - Molecules and matter P7 - Radioactivity KS3 NC Content links: Health, nutrition and digestion, photosynthesis, energetics, physical changes, particle model, energy in matter KS3 NC: Working Scientifically Scientific attitudes, experimental skills and investigations, analysis and evaluation, measurements Assessment objectives: AO1, AO2, AO3 Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature) Required practical: Photosynthesis, Electrolysis, Temperature changes, Density Literacy foci Reading skills, Comprehension skills, Science glossary of terms, Writing skills Numeracy foci Arithmetic and numerical computation, Handling data, Algebra, Graphs Homework Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions Revisiting, revising, remembering opportunities KS4 DO NOW starter activities, Exam question starters from previous topics One week revising and teaching students how to revise before EOC assessment Enrichment/life and work skills: Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness SMSC The impact of diet, exercise and drugs on our health. Assessments: End of chapter tests, Exam chapter examination homework questions Reports to parents :</p> <p>Extra -Curricular opportunities and Trips:</p> <ul style="list-style-type: none"> Virtual science club –via TEAMS -Aspiring Scientist Inter-house and Inter school competitions - Science week 	<p>KS4 NC: Cell Biology, Coordination and control</p> <p>B9 - Respiration B10 - The human nervous system KS4 NC: Rate and extent of chemical change C11 – The Earth’s atmosphere KS4 NC: Forces and motion P8 - Forces in balance P9 – Motion KS3 NC Content links: cellular respiration, the skeletal and muscular systems, chemical reactions, Balanced forces KS3 NC: Working Scientifically Scientific attitudes, experimental skills and investigations, analysis and evaluation, measurements Assessment objectives: AO1, AO2, AO3 Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature) Required practical: Rates of reaction Literacy foci Reading skills, Comprehension skills, Science glossary of terms, Writing skills Numeracy foci Arithmetic and numerical computation, Handling data, Algebra, Graphs Homework Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions Revisiting, revising, remembering opportunities KS4 DO NOW starter activities, Exam question starters from previous topics One week revising and teaching students how to revise before EOC assessment Enrichment/life and work skills: Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness SMSC Learning about ourselves and how we function: Nerves and Hormones, Respiration and Exercise, Assessments: End of chapter tests, Exam chapter examination homework questions Paper 1 Biology- 1hr Paper 1 Chemistry- 1hr Paper 1 Physics – 1hr Year 10 End of year exams (Monday 20th June to Friday 1st July) Reports to parents : Year 10 Parents Evening (Thursday 5th May)</p> <p>Extra -Curricular opportunities and Trips:</p> <ul style="list-style-type: none"> Virtual science club –via TEAMS -Aspiring Scientist

usive curriculum ‘skills, knowledge and concepts: literacy, life skills and enrichment



CURRICULUM MAP – Year 11 GCSE Combined Science

Mastering qualifications

Year 11

Term - Autumn 14 weeks

KS4 NC: Cell Biology, Coordination and control

B11 - Hormonal control in human and plants

B12 – Reproduction

B13 - Variation and evolution

KS4 NC: Chemical and allied industries, Chemical analysis

C8 - Rates and equilibrium

C9 - Crude oil and fuels

KS4 NC: Forces and motion, wave motion

P8 - Forces in balance

P9 – Motion

P10 - Force and motion

KS3 NC Content links: The skeletal and muscular system, Reproduction, materials, pure and impure substances, describing motion, observed waves,

KS3 NC: Working Scientifically

- Scientific attitudes
- Experimental skills and investigations
- Analysis and evaluation
- Measurements

Assessment objectives: AO1, AO2, AO3

Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature)

Required Practical: Reaction time, Chromatography, Acceleration, Force and extension

Literacy foci

Reading skills, Comprehension skills, Science glossary of terms, Writing skills

Numeracy foci

Arithmetic and numerical computation, Handling data, Algebra, Graphs

Homework

Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions

Revisiting, revising, remembering opportunities

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

Enrichment/life and work skills:

Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness

SMSC

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,

Assessments:

End of chapter tests

PPE 1

Extra -Curricular opportunities and Trips:

- Virtual science club –via TEAMS Aspiring Scientist
- Inter-house and Inter school competitions

Mastering qualifications

Year 11

Term - Spring 12 weeks

KS4 NC: Evolution, inheritance and variation, ecosystems

B14 – Genetics and evolution

B15 - Adaptions, interdependence and competition

B16 - Organising an ecosystem

B17 - Biodiversity and ecosystems

KS4 NC: Earth and atmospheric science

C10 - Chemical analysis

C11 - The Earth’s atmosphere

C12 - The Earth’s resources

KS4 NC: Wave motion, Magnetism and electromagnetism

P11 - Wave properties

P12 - Electromagnetic waves

P13 - Electromagnetism

KS3 NC Content links inheritance, chromosomes, DNA and genes, relationships un an ecosystem, earth and atmosphere, Energy and waves, static electricity, magnetism

KS3 NC: Working Scientifically

- Scientific attitudes
- Experimental skills and investigations
- Analysis and evaluation
- Measurements

Assessment objectives: AO1, AO2, AO3

Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature)

Required Practical: Field investigations, Water purification, Waves, Radiation and absorption

Literacy foci

Reading skills, Comprehension skills, Science glossary of terms, Writing skills

Numeracy foci

Arithmetic and numerical computation, Handling data, Algebra, Graphs

Homework

Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions

Revisiting, revising, remembering opportunities

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

Enrichment/life and work skills:

Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness

SMSC

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.

Assessments:

End of chapter tests

PPE2 – Years 11

Mastering qualifications

Year 11

Term - Summer 6 weeks

- Paper 1 revision for Biology, Chemistry and Physics
- Paper 2 revision for Biology, Chemistry and Physics

Assessment objectives: AO1, AO2, AO3

Working scientifically (KS4 NC: The development of scientific thinking, Experimental skills and strategies, Analysis and evaluation, Vocabulary, units, symbols and nomenclature)

KS3 NC: Working Scientifically

- Scientific attitudes
- Experimental skills and investigations
- Analysis and evaluation
- Measurements

Required Practical: Revision of all practicals encountered within the GCSE, with a focus on writing the methods.

Literacy foci

Reading skills, Comprehension skills, Science glossary of terms, Writing skills

Numeracy foci

Arithmetic and numerical computation, Handling data, Algebra, Graphs

Homework

Kerboodle online tasks, Doodle online tasks, Seneca online tasks, End of chapter examination questions

Revisiting, revising, remembering opportunities

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

Enrichment/life and work skills:

Group work/collaboration, research skills, public speaking, empathy, time management, perseverance, cultural awareness

SMSC

Revision of all the elements that have been encountered during the GCSE course.

Assessments:

Kerboodle End of Paper 2 test

Walking talking mock

Extra -Curricular opportunities and Trips:

- Virtual science club –via TEAMS -Aspiring Scientist

'life skills and enrichment'