

OVERVIEW

Students follow the AQA GCSE Science course and continue to build on the knowledge and understanding gained from Year 10. Lessons include regular retrieval practice and past paper questions across current and past topics to build up recall and application skills in readiness for their exams. Students continue to study topics across biology, chemistry and physics with a mixture of theory and practical work. Students are taught by three teachers, each taking 5 lessons a fortnight.

Aut

Biology

B5 Homeostasis
Nervous system, Reflexes investigation, Brain, Eyes and Vision, Thermoregulation, Endocrine system, diabetes, menstrual cycle, artificial control of fertility, plant hormones

Chemistry

C7 Organic Chemistry
Crude oil and hydrocarbons, Fractional Distillation, Cracking, reactions of alkenes, alcohols, carboxylic acids, synthetic polymers, condensation polymerisation
C8 Chemical Analysis
Chromatography, Purity, Gas tests, Identification of ions, Flame emission spectroscopy

Physics

P5 Forces
Contact & Non-contact forces, Resultant Forces, Hooke's Law, moments, gears & levers, pressure, Velocity/Distance Time graphs, acceleration, stopping distance, car safety
P6 Waves
Wave features & calculations, measuring waves, reflection, sound and seismic waves, EM

Assessment:

End of topic test for each unit.

Mock 1 exams – 3 x Paper 1

Spr

Biology

B6 Inheritance
Genes, DNA, Inheritance, Inherited Diseases, Genetic Diagrams, Protein synthesis, the work of Mendel, Darwin and Wallace, Theory of Evolution, evidence of evolution, fossils, cloning

Chemistry

C9 Atmosphere
Composition of Earth's atmosphere, Greenhouse gases and climate change, Atmospheric pollutants
C10 Using Resources
Sustainable development, Potable water, Extracting metals, Life Cycle Assessment, Corrosion, Use of alloys, Ceramics, polymers, composites

Physics

P7 Magnetism
Magnetic fields, Motor effect, Electric motors, speakers and microphones, transformers & the National Grid
P8 Space
Solar system, Life cycle of stars, orbital motion and satellites, red shift

Assessment:

End of topic test for each unit.

Mock 2 exams – 3 x Paper 2

Sum

Revision and Exam Preparation

The lead up to the exams will be spent consolidating the curriculum and making sure that students have the required knowledge and skills in Science. A range of resources and techniques will be shared such as using mindmaps, flash cards, past exam questions, revision guides, videos and quizzes. As well as reviewing all knowledge and skills there will be a focus on exam technique.

Assessment:

GCSE Exams

Students will sit 2 papers for each area (6 papers in total)

Useful resources for supporting your child at home:

- CGP Science Revision Guide x 3 (provided)
- BBC Bitesize revision pages
- Youtube: Cognito Science lessons

Homework:

Weekly exam question and Sparx Science must be completed



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