



Overview:

Students continue to learn the AQA Science (trilogy) GCSE across 9 lessons a fortnight. Three teachers teach each class so each subject (biology, chemistry and physics) gets 3 lessons a fortnight. Topics in Year 10 are more challenging than the topics in Year 9 with the focus on understanding more complex ideas and processes and developing more demanding practical skills. Independent learning is set every week which follows learning in lessons so students have the chance to revisit and embed knowledge. We have three big assessments in the year and leading up to these assessments we have revision lessons where we teach and develop good revision techniques.

Careers in the Curriculum:

The topics covered will highlight links to careers in virology, structural engineers, chemical engineering, electrician, health advisers, wastewater treatment

Term	Topic	Assessment
Aut1	B3 - Infection and response <ul style="list-style-type: none"> • Pathogens and vaccination C5 - Energy changes <ul style="list-style-type: none"> • Exothermic and endothermic reactions P4 - Atomic structure <ul style="list-style-type: none"> • The atom, alpha beta decay, half life and irradiation 	Aiming High 1 test in mid-October assessing all of the topics taught up to that point.
Aut2	B3 - Infection and response <ul style="list-style-type: none"> • Antibiotics and development of new medicines C6 - The rate and extent of chemical change <ul style="list-style-type: none"> • Rates of reactions, effect of temperature and surface area P1 - Energy <ul style="list-style-type: none"> • Power, energy and specific heat capacity 	Formative assessment in class through the use of show me boards and questioning.
Spr1	B4 - Bioenergetics <ul style="list-style-type: none"> • Photosynthesis, respiration and effect of exercise C6 - The rate and extent of chemical change. <ul style="list-style-type: none"> • Catalysts, reversible reactions and dynamic equilibrium P3 - Particle model of matter <ul style="list-style-type: none"> • Internal energy and particle motion 	Aiming High 2 test in late January assessing all of the topics taught up to that point.
Spr2	B5 - Homeostasis and response <ul style="list-style-type: none"> • The nervous system and reaction times C7 - Organic chemistry <ul style="list-style-type: none"> • Fractional distillation, alkanes and cracking P2 - Electricity <ul style="list-style-type: none"> • Charge, current and potential difference, including resistance 	Formative assessment in class through the use of show me boards and questioning.
Sum1	B5 - Homeostasis and response <ul style="list-style-type: none"> • The endocrine system, diabetes, human reproductive hormones C8 - Chemical analysis <ul style="list-style-type: none"> • Chromatography and gas tests. C9 - Chemistry of the atmosphere <ul style="list-style-type: none"> • The Earth's atmosphere, climate change and pollution P2 - Electricity <ul style="list-style-type: none"> • Diodes, the national grid, AC and DC 	Formative assessment in class through the use of show me boards and questioning.
Sum2	B7 - Ecology <ul style="list-style-type: none"> • Environmental sampling, competition in plants and animals C10 - Using resources <ul style="list-style-type: none"> • Potable water, waste water, phytomining and life cycle assessments P2 - Electricity <ul style="list-style-type: none"> • Wiring a plug, energy transfers in appliances 	PPE in mid-June assessing all of the topics taught up to that point.



Overview:

Students continue to learn the AQA Science (trilogy) GCSE. Students are put into attainment classes in Year 11 meaning that students are now either in a set being taught material leading to higher tier exams (grades 5-9) or foundation tier exams (grades 1-5). This means we can target tasks and support more precisely. Independent learning continues to be set each week which supports retention of knowledge and skills developed in lessons. We have two major assessments in the year, and of course the big focus is the final exam in the summer. Revision lessons precede these assessments where we refine revision skills and hone knowledge and techniques.

Careers in the Curriculum:

The topics covered will highlight links to careers in environmental monitoring, veterinary technicians, forensic investigation, metallurgy, chemical process operative.

Term	Topic	Assessment
Aut1	B7 - Ecology <ul style="list-style-type: none"> • The cycling of nutrients, and human effects on ecosystems C3 - Quantitative chemistry <ul style="list-style-type: none"> • Mass and the mole P5 - Forces <ul style="list-style-type: none"> • Hooke's Law and Newton's Laws 	Aiming High 1 test in mid October assessing all of the topics taught up to that point.
Aut2	B6 - Inheritance, Variation and Evolution <ul style="list-style-type: none"> • DNA, patterns of inheritance and natural selection C4 - Chemical changes <ul style="list-style-type: none"> • Acids, bases and the reactivity of metals P5 - Forces <ul style="list-style-type: none"> • Acceleration, stopping distances and momentum 	Formative assessment in class through the use of show me boards and questioning.
Spr1	B6 - Inheritance, Variation and Evolution <ul style="list-style-type: none"> • Fossils, classification and extinction C4 - Chemical changes <ul style="list-style-type: none"> • Redox reactions, ionic equations and electrolysis P6 - Waves <ul style="list-style-type: none"> • Refraction and speed of sound 	PPE in early-February assessing all of the topics taught up to that point.
Spr2	P6 Waves <ul style="list-style-type: none"> • The electromagnetic spectrum P7 - Magnetism and electromagnetism <ul style="list-style-type: none"> • Magnets, compasses and the motor effect 	Formative assessment in class through the use of show me boards and questioning.
Sum1	Revision <ul style="list-style-type: none"> • Past paper revision questions to practice techniques including evaluate, compare and data interpretation questions • Review of all topics 	Formative assessment in class through the use of show me boards and questioning.
Sum2	Revision <ul style="list-style-type: none"> • Past paper revision questions to practice techniques including evaluate, compare and data interpretation questions • Review of all topics 	Final exams