




St Richard Reynolds Catholic High School

<p>SUBJECT: COMBINED SCIENCE YEAR GROUP: 11</p> <p>TOPICS COVERED</p> <p>Biology: Homeostasis; Inheritance, variation and evolution; Ecology</p> <p>Chemistry: Organic Chemistry, Chemical analysis, Chemistry of the atmosphere, Using resources</p> <p>Physics: Magnetism, Waves, Particle model of matter, Atomic structure</p>	
<p style="text-align: center;">PROGRAMME OF STUDY</p>	<p style="text-align: center;">METHOD OF ASSESSMENT</p>
<p>Autumn Term</p> <p>Biology: Homeostasis – to complete from Y10.</p> <p>Inheritance – sexual and asexual reproduction, meiosis, advantages and disadvantages of different reproductive methods, reproductive strategies in organisms like the plasmodium parasite, determination of gender, DNA, gene expression, mutation, inheritance, Mendel and his contribution to genetics, genetic engineering, cloning, variation, selective breeding, evolution, speciation, evidence for evolution, antibiotic resistant bacteria, extinction.</p> <p>Chemistry:</p> <ul style="list-style-type: none">• Organic Chemistry: Hydrocarbons, Fractional distillation, cracking, combustion,• Chemical analysis: Formulations, Chromatography, Testing for gases,• Chemistry of the atmosphere: Development of our atmosphere, Global warming, Climate change, Atmospheric pollutants <p>Physics:</p> <ul style="list-style-type: none">• Forces: Forces and their interactions, Forces and elasticity and Forces and motion	<p>Practical assessment</p> <p>End of topic test after each unit</p> <p>Assessed HW tasks</p> <p>Mock exams</p>

<p>Spring Term</p> <p>Biology: Complete Inheritance, variation and evolution, Ecology, classification, communities, distribution, adaptations, trophic levels, pyramids of number and biomass, cycles in nature, decomposition, biodiversity and management of ecosystems, waste, land use and deforestation, global warming and its impact, food security, farming techniques and their impact on the environment, sustainable fishery, the role of GM crops.</p> <p>Revision for mock exams</p> <p>Chemistry:</p> <ul style="list-style-type: none"> • Using resources: Finite resources, Potable water, Treating waste water, Extracting metals, Life Cycle Assessments, Recycling, • Revision for GCSE exams <p>Physics:</p> <ul style="list-style-type: none"> • Waves: Waves in air, fluids and solids and Electromagnetic waves • Electromagnetism: Permanent and induced magnetism, magnetic, forces and fields and The motor effect 	<p>Practical assessment</p> <p>End of topic test after each unit</p> <p>Assessed HW tasks</p>
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<p>Summer Term</p> <p>Revision for exams only</p> <p>Exam board – AQA</p>	<p>Practice past papers for exam preparation</p>
<p>Key Skills:</p> <ul style="list-style-type: none"> ➤ Experimental work ➤ Collecting data ➤ Interpreting, analysing and evaluating data ➤ Research and hypothesising ➤ Predicting and concluding ➤ Evaluating 	