

Combined Science Subject Academic Curriculum Overview

Year	<i>Term – substantive knowledge - Content</i>						<i>Disciplinary knowledge/ Transition Milestones</i>
	Sept – Oct	Oct- Dec	Jan-Feb	Feb-Mar	April – May	June-July	By the end of the year students will have learned to apply the following skills through the content studied.....
10	<p>Physics –</p> <p>P1,2,6,7 Recap year 9 content P4 Electricity from current and charge</p> <p>Biology –</p> <p>Recap yr 9 content B4 Organising animals and plants, blood, gas exchange and transport systems in plants.</p> <p>Chemistry –</p> <p>Recap yr 9 content C4 – Chemical calculations Begin C5 Chemical changes</p>	<p>Physics –</p> <p>P5 Electricity in the home</p> <p>Biology –</p> <p>B5 Communicable disease B6 Preventing and treating disease</p> <p>Chemistry –</p> <p>C5 Chemical changes continued</p>	<p>Physics –</p> <p>P9 Motion and the acceleration required practical P8 Forces in balance</p> <p>Biology –</p> <p>B7 Non communicable disease.</p> <p>Chemistry -</p> <p>C6 Electrolysis</p>	<p>Physics –</p> <p>P8 Complete Forces in balance P10 Force and motion including forces and braking</p> <p>Biology –</p> <p>B8 Photosynthesis B9 Respiration Rate of photosynthesis required practical.</p> <p>Chemistry –</p> <p>C7 Energy changes</p>	<p>Physics –</p> <p>Retrieval paper 1 with extended writing and calculation skills revisited</p> <p>Biology –</p> <p>B10 The human nervous system and the human reaction time required practical.</p> <p>Chemistry –</p> <p>C8 Rates and equilibrium</p>	<p>Physics –</p> <p>Mock exam revision Retrieval paper 1 with extended writing and calculation skills revisited Revisit atomic structure/radioactivity and molecules and matter</p> <p>Biology –</p> <p>Mock exam revision Retrieval paper 1 with extended writing and calculation and required practical skills revisited</p> <p>Chemistry –</p> <p>Mock exam revision Retrieval paper 1 with extended writing and calculation and required practical skills revisited</p>	<p>Complete various chemical reactions and explain the observations using atomic knowledge. Developing the analysis of primary and secondary data Investigation planning including identification of variables. Manipulation of data in equations, conversion of units. Producing balanced symbol equations, including state symbols. Construction of circuits. Taking a range of measurements. Application of knowledge to unfamiliar situations. Covering the AT skills and maths skills from the specification. Developing competency with literacy skills to describe, explain and evaluate scientific concepts and required practicals.</p>
11	<p>Physics –</p> <p>Recap yr 9 and 10 P12 Wave Properties Retrieval forces and paper 1</p> <p>Biology –</p> <p>Recap yr 9 and 10 B11 Hormonal control B13 Reproduction</p> <p>Chemistry –</p> <p>Recap yr 9 and 10 Complete C8 Rates C9 – Crude oil distillation and uses</p>	<p>Physics –</p> <p>P13 Electromagnetic Waves P12 Wave required practical Interleave with molecules and matter Retrieval forces</p> <p>Biology –</p> <p>B14 Variation and evolution. B15 Genetics and evolution</p> <p>Chemistry –</p> <p>C9 – Hydrocarbons C12 – Chemical analysis, gas tests, chromatography</p>	<p>Physics –</p> <p>P15 Electromagnetism interleave with electricity retrieval Retrieval waves, radioactivity</p> <p>Biology –</p> <p>B16 Adaptation, interdependence and competition. B17 Organising an ecosystem</p> <p>Chemistry –</p> <p>C13 – The Earth’s atmosphere</p>	<p>Physics –</p> <p>Revision and A02 skills</p> <p>Biology –</p> <p>B18 Biodiversity and ecosystems. Interdependence required practical.</p> <p>Chemistry –</p> <p>C14 – Use, reuse and recycling of water, metals and other products</p>	Revision/exams	revision/exams	<p>Apply chemical understanding to industry and the planet Explain the induction of magnetic and electric fields Describe the reliance of organisms on each other within an ecosystem Manipulation of data in equations, conversion of units. Covering the AT skills and maths skills from the specification. Developing competency with literacy skills to describe, explain and evaluate scientific concepts and required practicals.</p>

