



Year 11 Curriculum Guide

Subject: **Science**

Subject Leader: **Mr Singh**

Method of assessment

Students will have formal assessments throughout the course to cover contents and skills at the end of every topic. There will be regular homework which will have opportunities to read up on topics, to review and consolidate on the concepts covered in topics. There will be termly assessments, and these will comprise of exam-style questions. At the end of the year all students will have a final assessment to ascertain their levels for the subject in terms of their understanding, application of concepts and analytical skills.

Overview

	Autumn Term	Spring Term	Summer Term
1st Half	Biology: Genetics and reproduction B14 – Variation and evolution <ul style="list-style-type: none"> - How variation leads to evolution - Evolution by natural selection - Genetic engineering and its application Chemistry: Analysis and the earth's resources C12 – Chemical analysis <ul style="list-style-type: none"> - Testing for pure substances using various techniques - Analysing chromatograms Physics: Forces in action P10 – Force and motion <ul style="list-style-type: none"> - Effects of force on acceleration and braking - What momentum is - Effect of forces on elasticity of materials 	Biology: Ecology B16 – Adaptations, interdependence and competition <ul style="list-style-type: none"> - How organisms are interdependent on their environment - How organisms are distributed in a habitat - Competition in animals and plants Chemistry: Analysis and the earth's resources C14 – The Earth's resources <ul style="list-style-type: none"> - What are the renewable resources available? - Treatment of water for drinking - Extracting metals from ores Physics: Waves, electromagnetism and space P15 – Electromagnetism <ul style="list-style-type: none"> - How magnetic fields act and used for 	Revision for examinations

		generating electrical currents - The motor effect	
2 nd Half	Biology: Genetics and reproduction B15- Genetics and Evolution <ul style="list-style-type: none"> - What evidence is there for evolution? - Examples of evolution today – antibiotic resistance - How organisms are classified Chemistry: Analysis and the earth's resources C13 – The Earth's atmosphere <ul style="list-style-type: none"> - How the earth's atmosphere has evolved and is evolving - The effects on the atmosphere; global warming/greenhouse effect Physics: Waves, electromagnetism and space P12- Wave properties <ul style="list-style-type: none"> - The nature and properties of waves - How waves are affected by surfaces – reflection and refraction 	Biology: Ecology B17 – Organising an ecosystem B18 – Biodiversity and ecosystems <ul style="list-style-type: none"> - How organisms are inter-related in feeding relationships - Recycling in the environment - The effect of human populations on the environment - How biodiversity can be maintained 	Revision for examinations

Text Book/Reference/Resource guide:

- www.kerboodle.com – access to digital book and other resources
- CGP Revision guides for Science (AQA)
- AQA examination board (<http://www.aqa.org.uk/subjects/science/gcse>) for sample materials and syllabus
- <http://www.bbc.co.uk/education/subjects/zk26n39>
- <http://www.s-cool.co.uk/>
- AQA GCSE Biology/Chemistry/Physics Text books

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