



THE
WORTHGATE SCHOOL
CANTERBURY

COURSE DESCRIPTOR

IGCSE DOUBLE AWARD SCIENCE

SUBJECT OVERVIEW

Double Award Science contains an equal balance between Biology, Physics and Chemistry. Two GCSE grades are awarded at the end of the course, using a combined average of a student's performance in all three sciences.

Students will develop analytical and logic skills by applying understanding of scientific concepts and principles to a range of situations. Some examination questions will be more problem solving in style – addressing the need for mathematical skills to complement students' knowledge.

PRIOR LEARNING REQUIRED

No prior learning is required, however the PreGCSE course sets students up well, with a basic knowledge of all three sciences which can be built upon at GCSE level. Students who are willing to spend time studying on their own will do very well and will enjoy the course. We aim to instil a deep interest in each of the three sciences, which can be maintained in courses of further education and beyond.

EXAM BOARD

Edexcel

COURSE CONTENT

Year 1	Year 2
Biology Characteristics and variety of living organisms Cell structure and movement in and out of cells Biological Molecules Nutrition	Biology Reproduction Inheritance Breathing and respiration Circulation

<p>Excretion Coordination and response</p> <p>Chemistry States of matter Elements, compounds and mixtures Atomic structure The Periodic Table Chemical formulae, Equations and Calculations Ionic bonding Covalent bonding Group 1 (alkali metals) Group 7 (halogens) Gases in the atmosphere Reactivity series Acids, alkalis and titrations Acids, bases and salt preparations Chemical tests</p> <p>Physics Forces and motion Electricity Waves Energy resources and energy transfers Solids, liquids and gases</p>	<p>Ecology Use of biological resources</p> <p>Chemistry Rates of Reaction. Metal Reactivity and extraction. Products from Crude Oil – alkenes and alkanes. Energy in Chemical reactions. Reversible reactions.</p> <p>Physics Energy resources and energy transfers, Solids, liquids and gases, Magnetism and electromagnetism, Radioactivity and particles, Astrophysics.</p>
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ASSESSMENT

Formal internal assessments take place regularly about once every half term and homework is set on a regular basis. There is a summative assessment at the end of Year 1 to help determine progression onto Year 2.

Grades are determined by final examinations, which take place in May/June at the end of the 2-year course.



Paper	Length of paper	Weighting
Biology 4BI1	2 hours	33% of the IGCSE grade
Chemistry	2 hours	33% of the IGCSE grade
Physics	2 hours	33% of the IGCSE grade

TEXTBOOKS/REVISION GUIDES

Title	ISBN	Author
NEW EDEXCEL INTERNATIONAL GCSE BIOLOGY REVISION GUIDE	1782946748	CGP Revision Guides

EDEXCEL INTERNATIONAL GCSE (9-1) BIOLOGY STUDENT LAB BOOK	1510451528	Adrian Schmidt and Margaret Royal
EDEXCEL INTERNATIONAL GCSE BIOLOGY WORKBOOK	9781510405653	Erica Larkcom, Roger Delpech and Kathy Evans
EDEXCEL INTERNATIONAL GCSE CHEMISTRY: REVISION GUIDE	1782946764	CGP Revision Guides
EDEXCEL INTERNATIONAL GCSE (9-1) CHEMISTRY STUDENT LAB BOOK	1510451544	David Johnston and Neil Dixon
EDEXCEL INTERNATIONAL GCSE CHEMISTRY WORKBOOK	1510405623	Robert Wensley
EDEXCEL INTERNATIONAL GCSE PHYSICS: REVISION GUIDE	178294687X	CGP Revision Guides
EDEXCEL INTERNATIONAL GCSE (9-1) PHYSICS STUDENT LAB BOOK	1510451560	Matt Shooter and Kimberley Walrond
EDEXCEL INTERNATIONAL GCSE PHYSICS WORKBOOK	1510405666	Nick England and Nicky Thomas

HIGHER EDUCATION PATHWAYS

Students who successfully complete the exam to the required standard (normally grade 6) can be considered for the Biology, Chemistry and or Physics A level and IB courses.





COMPLEMENTARY SUBJECTS OF STUDY

Maths, Geography

CURRICULUM DIRECTOR

Ms. Sue Chubb