

Subject: GCSE Triple Science

Examination Board Edexcel/Pearson

Specification Number 1BIO, 1CHO, 1PHO

Teacher responsible Mr Collyer

Introduction

All students at Waterfront UTC are required to study GCSE Combined Science. The opportunity to study Triple science is an option made available to all students. This can be selected as one of the option choices. Extra content which would allow them to convert their double Combined Science award to the three separate science awards in Biology, Chemistry and Physics is covered in the option block.

Course Content

Students will cover a broad range of topics in Biology, Chemistry and Physics:

Biology 1: Cells and Control, Genetics, Natural Selection and Genetic Modification, Health disease and Medicines

Biology 2: Plant structure and Function, Coordination, Homeostasis, Exchange and Transport in animals, Ecosystems

Chemistry 1: Periodic Table, Bonding and Structure, Quantitative chemistry, Extracting Metals and Equilibrium, Electrolysis and Separation of substances

Chemistry 2: Enthalpy changes, Fuels and Earth Science, Reaction Rates, Groups in the Periodic Table.

Physics 1: Motion and Forces, Conservation of Energy, Waves, Light and EM spectrum, Radioactivity.

Physics 2: Energy and Work, Forces and their effects, Electricity and Circuits, Magnetism and the Motor effect, Induction, the Particle Model of matter.

Assessment

Assessment takes place at the end of the course and is 100% examination based. There are six examinations. Examinations are tiered; Higher or Foundation. Foundation Tier ranges from grades 1 - 5, Higher Tier from grades 4 - 9. There are no extra exam papers to be completed by the triple science students, instead each exam will be extended by 30 minutes and the extra content will be assessed in each exam.

As a requirement of the course, students will perform mandatory practical experiments, which may be assessed through the terminal examinations. The completion of the practical tasks is a key requirement of the course.

Progression

Students can progress from this qualification to:

- GCE A Levels, for example in Biology, Chemistry and/or Physics
- Level 3 vocational qualifications in science, for example. BTEC Level 3 in Applied Science
- Employment, for example in a science-based industry where an Apprenticeship may be available.

The content and skills for these qualifications are set by the DfE to be suitable to allow these progression routes.