**Separate science GCSE 1-9**

Exam dates: Summer of Year 11

Each subject has two exams, 6 in total, in the summer examination period. Each exam lasts 105 mins

**Biology - paper 1 – 105 mins**

Key concepts in biology Cells and control

Genetics Natural selection and genetic modification

Health, disease and the development of medicines

**Biology - paper 2 – 105 mins**

Key concepts in biology Plant structures and their functions

Animal coordination, control and homeostasis Exchange and transport in animals

Ecosystems and material cycles

**Chemistry - paper 1 – 105 mins**

States of matter Methods of separating and purifying substances

Atomic structure The Periodic Table

Ionic bonding Covalent boding

Types of substance Acids and alkalis

Electrolytic processes Obtaining and using metals

Reversible reactions and equilibria Transition metals, alloys and corrosion

Quantitative analysis Dynamic equilibria, calculations involving volumes of gases

Chemical cells and fuel cells

**Chemistry - paper 2 – 105 mins**

Atomic structure The Periodic Table

Ionic bonding Covalent boding

Types of substance Calculations involving masses

Groups in the Periodic Table Rates of reaction

Heat energy changes in chemical reactions Fuels

Earth and atmospheric science Hydrocarbons

Alcohols and carboxylic acids Polymers

Qualitative analysis: tests for ions Bulk and surface properties of matter including nanoparticles

**Physics - paper 1 – 105 mins**

Motion Forces and motion

Conservation of energy Waves

Light and the electromagnetic spectrum Radioactivity

Astronomy

**Physics - paper 2 – 105 mins**

Energy – forces doing work Forces and their effects

Electricity and circuits Magnetism and the motor effect

Electromagnetic induction Particle model

Forces and matter Static electricity