

KS4 Curriculum Overview

In Year 10 and 11 all students study the AQA Science GCSE. Two different routes are followed depending on ability, Trilogy (Double award) or three Separate Sciences (Triple award). Students that are following the Separate Science route will not be chosen until Year 11 to ensure all students are on the best route to achieve the best possible outcomes. Students following both pathways attend three lessons each of Biology, Chemistry and Physics a fortnight and are taught by 3 different specialist teachers. During these lessons, they learn the content and practical skills required to succeed in their final exams.

Biology

The Biology course explores: cell biology; organisation; infection and response; bioenergetics; homeostasis and response; inheritance and ecology. The final exam consists of two papers. Ten percent of the paper will be based on numeracy skills in the context of Biology. Twenty percent of the paper is based on required practicals and practical skills.

Required Practical:

- Microscopy
- Osmosis
- Enzymes
- Food Tests
- Photosynthesis
- Reaction time
- Field Investigations
- Microbiology (Triple)
- Plant Responses (Triple)
- Decay (Triple)

Chemistry

The Chemistry course explores: atoms and the Periodic Table; bonding; quantitative chemistry; chemical reactions; energetics; organic chemistry; chemical analysis and Earth and atmosphere. The final exam consists of two papers. Twenty percent of the paper will be based on numeracy skills in the context of Chemistry. Twenty percent of the paper is based on required practicals and practical skills.

Required Practical:

- Making salts
- Electrolysis
- Temperature changes
- Rates of reaction
- Chromatography
- Water purification
- Neutralisation (Triple)
- Identifying ions (Triple)

Physics

The Physics course explores: energy; electricity; particles and density; atomic structure and radioactivity; forces; waves; and space (Separate Science students only). The final exam consists of two papers. Thirty percent of the paper will be based on numeracy skills in the context of Physics. Twenty percent of the paper is based on required practicals and practical skills.

Required Practical:

- Specific heat capacity
- Resistance
- I-V characteristics
- Density
- Force and extension

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- Acceleration
- Waves
- Radiation and Adsorption
- Thermal Insulation (Triple)
- Light (Triple)

Additional support can be found on the google shared drive ('GCSE Students Support Documents'). This folder includes core questions, knowledge organisers, past paper questions and video lessons should you miss a lesson or require more support in a certain area.