

## **Key Stage 4 Science at Yavneh College**

Pupils who study science at Yavneh College will go down one of three routes. Pupils will either complete a **Separate Science** course that gives three GCSEs, or a **Combined Science** course that results in two GCSEs.

### **Qualifications**

Separate Science pupils will obtain:

GCSE Biology  
GCSE Chemistry  
GCSE Physics

Additional Science (combined) pupils will obtain:

GCSE Science  
GCSE Additional Science

Additional Applied Science (combined) pupils will obtain:

GCSE Science  
GCSE Additional Applied Science

### **Exam Board**

The AQA exam board provides all of the science GCSEs taken here at Yavneh College.

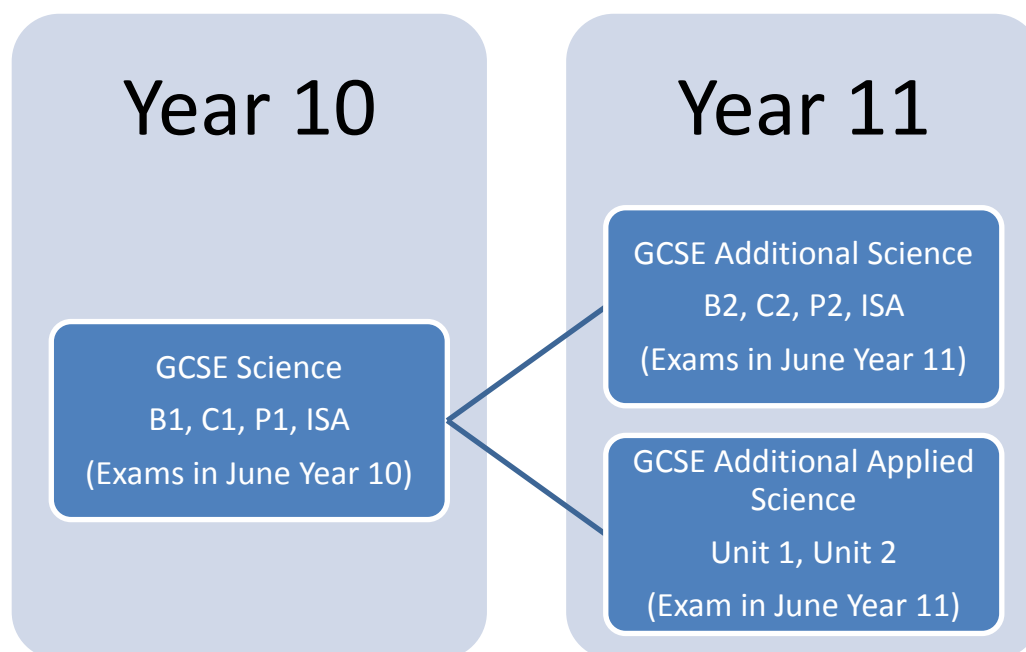
Included below is a brief description of the content of each of the GCSEs on offer, including approximate dates of exams.

### **Teaching**

Throughout their GCSE course, Yavneh College aims to have three different subject specialist teachers teach pupils in the individual subject disciplines of Biology, Chemistry and Physics. Those completing the Combined Science course will have 4 hours of teaching from each teacher over the two-week school timetable. This totals 12 hours of science in two weeks. The pupils studying for the Separate Science qualifications will have 5 hours 20 minutes of contact time with each teacher over the two-week timetable. This extra 40 minutes per week comes in the place of the enrichment period that is used for various clubs throughout Key Stage 3.

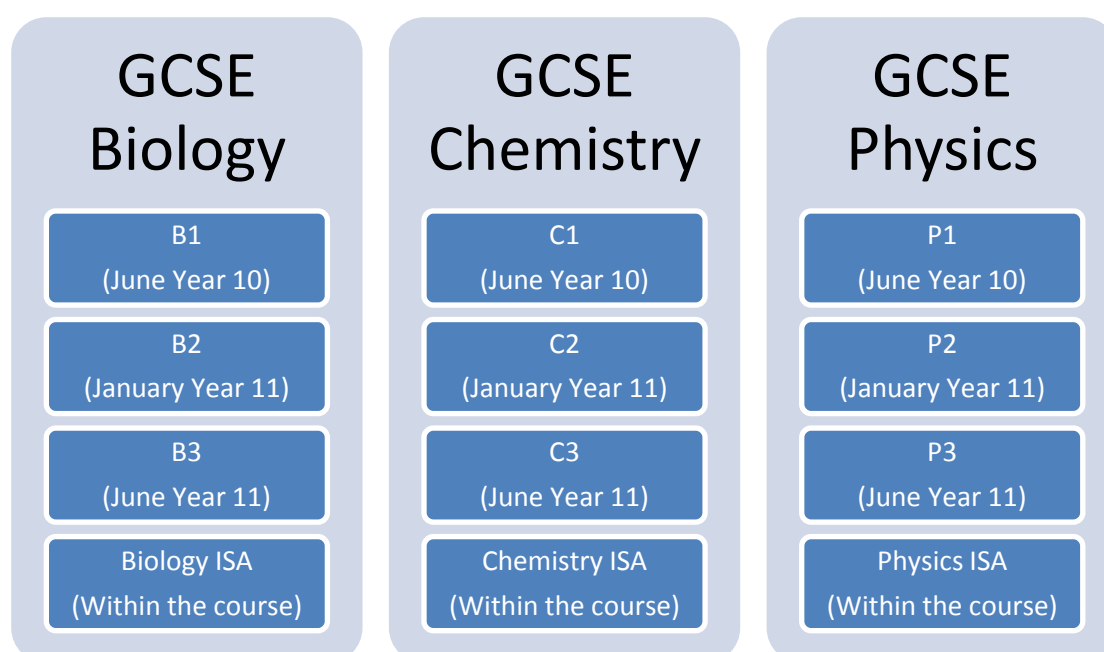
## Combined Science

The flow diagram shows the two possible routes through Key Stage 4. Both routes achieve two GCSEs in science. In Year 11 the pupils will either study GCSE Additional Science or GCSE Additional Applied Science



## Separate Science

The flow diagram shows the four components, and when they are examined, of each of the three GCSEs. Each component is worth 25% of the GCSE grade.



## **GCSE Science**

This GCSE is studied throughout Year 10. Performance in this GCSE does not affect performance of the GCSE studied in Year 11 (and vice versa).

It consists of three module exams, taken in the May/June exam period of Year 10 and a coursework element (referred to as an ISA) that will be completed during either the winter or spring term of Year 10.

Each module exam is worth 25% of the GCSE, with the ISA being worth the final 25%. The three modules are:

B1 – Biology 1 (Human Biology, evolution and environment)

C1 – Chemistry 1 (Atomic structure, hydrocarbons, Earth and it's atmosphere)

P1 – Physics 1 (Energy transfers, generation of electricity, light)

Due to the 40% rule, pupils will be unable to retake these modules. This means that before the start of Year 11, pupils will have already achieved their first GCSE.

## **GCSE Additional Science**

This GCSE is studied throughout Year 11. Performance in this GCSE does not affect performance in GCSE Science (studied in Year 10).

It consists of three module exams, taken in the May/June exam period of Year 11 and a coursework element (referred to as an ISA) that will be completed in the winter or spring term of Year 11.

Each module exam is worth 25% of the GCSE, with the ISA being worth the final 25%. The three modules are:

B2 – Additional Biology (Cells, plants and genomes)

C2 – Additional Chemistry (Bonding, moles, rates of reaction)

P2 – Additional Physics (Forces, Radiation and electricity)

## **GCSE Additional Applied Science**

This GCSE is studied throughout Year 11. Performance in this GCSE does not affect performance in GCSE Science (studied in Year 10).

It consists of two units. The first unit is assessed using an examination in the May/June exam period of Year 11. The second unit is a coursework task completed in the winter and spring term of Year 11.

The exam is worth 40% of the GCSE, with the final 60% being provided by the Unit 2 coursework task.

Unit 1 – Science at Work

Unit 2 – How Scientists use practical techniques

This GCSE is aimed at pupils who are better suited to the more vocational aspects of science and their relevance to the workplace. The large emphasis on coursework is also favoured by some pupils, who prefer this method of assessment. However the applied nature of this course does not provide a route to taking science A-Levels at Yavneh College.

### **GCSE Biology**

This GCSE is studied throughout Year 10 and 11. It consists of three exam modules and a coursework task (referred to as an ISA). Each module is worth 25% of the GCSE, with the final 25% being provided by the ISA. The three modules are:

B1 – Biology 1 (Human Biology, evolution and environment)

B2 – Additional Biology (Cells, plants and genomes)

B3 – Further Biology (Transport in plants and animals, Biofuels)

B1 is examined in the May/June exam period of Year 10. B2 is examined in the January exam period of Year 11. B3 is examined in the May/June exam period of Year 11.

### **GCSE Chemistry**

This GCSE is studied throughout Year 10 and 11. It consists of three exam modules and a coursework task (referred to as an ISA). Each module is worth 25% of the GCSE, with the final 25% being provided by the ISA. The three modules are:

C1 – Chemistry 1 (Atomic structure, hydrocarbons, Earth and it's atmosphere)

C2 – Additional Chemistry (Bonding, moles, rates of reaction)

C3 – Further Chemistry (Periodic table, organic and inorganic chemistry)

C1 is examined in the May/June exam period of Year 10. C2 is examined in the January exam period of Year 11. C3 is examined in the May/June exam period of Year 11.

## **GCSE Physics**

This GCSE is studied throughout Year 10 and 11. It consists of three exam modules and a coursework task (referred to as an ISA). Each module is worth 25% of the GCSE, with the final 25% being provided by the ISA. The three modules are:

P1 – Physics 1 (Energy transfers, generation of electricity, light)

P2 – Additional Physics (Forces, Radiation and electricity)

P3 – Further Physics (Lenses, electromagnetic induction, medical physics)

P1 is examined in the May/June exam period of Year 10. P2 is examined in the January exam period of Year 11. P3 is examined in the May/June exam period of Year 11.