

# GCSE COMBINED SCIENCE (AQA EXAM BOARD)



## SPECIFICATION 8464 Trilogy

## CALENDAR OF KEY EVENTS

The primary objective of the specification is to interest and engage candidates in science. This is achieved by:

- identifying activities and experiences which will excite their interest and linking these scientific ideas and their implications for society.
- providing opportunities to develop science explanations and theories.
- providing a scheme of assessment which gives regular feedback

### **Biology:**

1. Cell Biology
2. Organisation
3. Infection and Response
4. Bioenergetics
5. Homeostasis and Response
6. Inheritance, variation and evolution
7. Ecology

### **Chemistry:**

8. Atomic structure and the periodic table
9. Bonding, structure and the properties of matter
10. Quantitative chemistry
11. Chemical changes
12. Energy changes
13. The rate and extent of chemical change
14. Organic chemistry
15. Chemical analysis
16. Chemistry of the atmosphere
17. Using resources

### **Physics:**

18. Forces
19. Energy
20. Waves
21. Electricity
22. Magnetism and electromagnetism
23. Particle model of matter
24. Atomic structure

Mock exams of Year 10 topics December, April and June/July.

GCSE exams at the end of Year 11.

Required Practical work in lessons throughout Year 10 and Year 11

## EXAMINATION ASSESSMENT

### **Overview:**

All written papers are set in one two tiers, Foundation Tier and Higher Tier.

Foundation Tier papers assess grades 1-5 and Higher Tier papers assess grades 5-9.

Candidates are not allowed a mixed tier entry, so all exams must be sat on the same level of entry.

The Trilogy GCSE qualification is linear which means that students will sit all exams at the end of year 11.

There are six papers; two Biology exams, two Chemistry exams and two Physics exams.

This is the general breakdown of each paper:

**Paper 1:** Biology 1, topics 1-4 (70 marks, 16.7% of the GCSE – 1hr 15minutes)

**Paper 2:** Biology 2, topics 5-7 (70 marks, 16.7% of the GCSE – 1hr 15minutes)

**Paper 3:** Chemistry 1, topics 8-12 (70 marks, 16.7% of the GCSE – 1hr 15minutes)

**Paper 4:** Chemistry 2, topics 13-17 (70 marks, 16.7% of the GCSE – 1hr 15minutes)

**Paper 5:** Physics 1, topics 19,21,23 and 24 (70 marks, 16.7% of the GCSE – 1hr 15minutes)

**Paper 6:** Physics 2, topics 18,20, and 22 (70 marks, 16.7% of the GCSE – 1hr 15minutes)



## GCSE COMBINED SCIENCE (AQA EXAM BOARD)

### SPECIFICATION 8465 Synergy

### EXAMINATION ASSESSMENT

The content in this specification is divided into two main sections, which contain connections between areas of biology, physics and chemistry that sit together as part of good science.

#### Life and environmental sciences

- Building blocks: from atoms to cells, behaviour and transport on the small scale.
- Transport over larger distances: systems in animals and plants and how these systems interact.
- Interactions with the environment: the effects of factors in the environment on organisms, how our choices affect our health.
- Explaining change: how organisms, species, living and non-living systems change over time.

#### Physical sciences

- Building blocks for understanding: organising, patterns, properties and analysis.
- Interactions over small and large distances: strong and weak forces between atoms, molecules and larger structures and how they interact.
- Movement and interactions: rates of change of motion and direction of large and small objects, and chemical changes.
- Guiding Spaceship Earth towards a sustainable future: resources of materials and energy.

The Synergy GCSE qualification is linear which means that students will sit all exams at the end of year 11. There are 4 papers; two each section of content. This is the general breakdown of each paper:

**Paper 1:** Life and environmental sciences (Written exam: 1 hour 45 minutes, 100 marks, 25 % of GCSE. Questions have greater emphasis on **knowledge and application skills**.)

**Paper 2:** Life and environmental sciences (Written exam: 1 hour 45 minutes, 100 marks, 25 % of GCSE. Questions have a greater emphasis on **analysis and evaluation skills** and the **required practicals** for this section.)

**Paper 3:** Physical sciences (Written exam: 1 hour 45 minutes, 100 marks, 25 % of GCSE. Questions have greater emphasis on **knowledge and application skills**.)

**Paper 4:** Physical sciences (Written exam: 1 hour 45 minutes, 100 marks, 25 % of GCSE. Questions have a greater emphasis on **analysis and evaluation skills** and the **required practicals** for this section.)

Mock exams of Year 10 topics December, April and June/July.

GCSE exams at the end of Year 11.

Required Practical work in lessons throughout Year 10 and Year 11

### How parents can help at home

1. Ensure that your son/daughter completes homework on a weekly basis.
2. Ensure that your son/daughter revises thoroughly for all topic tests and exams.
3. Encourage your son/daughter to use websites and the revision guide/workbooks to review topics and to revise for exams.