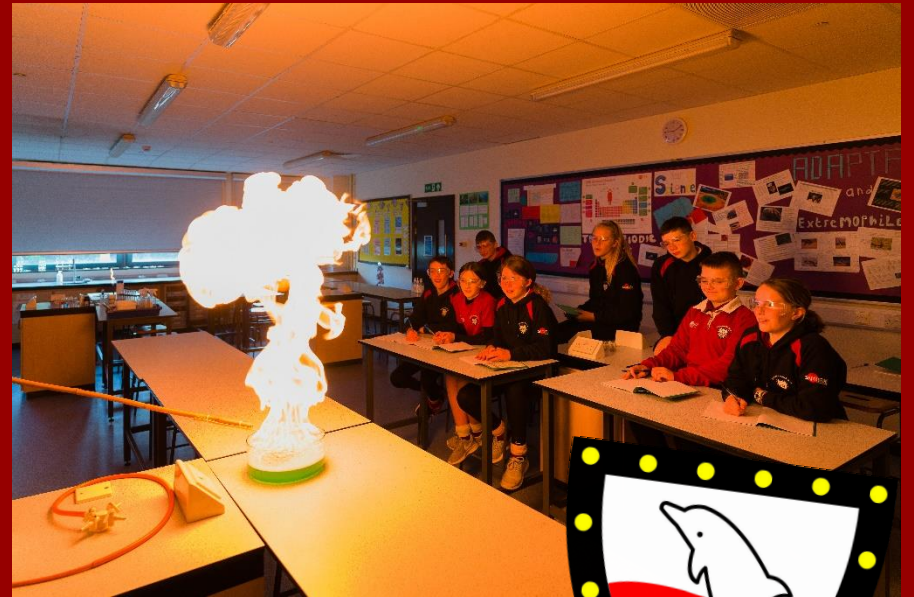


# Welcome

## GCSE Combined Science Revision



Exam Board: AQA

Course: **GCSE Combined Science**  
**TRILOGY** 8464

# AQA TRILOGY: GCSE Combined Science Exams

12<sup>th</sup> May 2026

Biology

Paper 1

70 marks

1 hour 15 min

18<sup>th</sup> May 2026

Chemistry

Paper 1

70 marks

1 hour 15 min

2<sup>nd</sup> June 2026

Physics

Paper 1

70 marks

1 hour 15 min

8<sup>th</sup> June 2026

Biology

Paper 2

70 marks

1 hour 15 min

12<sup>th</sup> June 2026

Chemistry

Paper 2

70 marks

1 hour 15 min

15<sup>th</sup> June 2026

Physics

Paper 2

70 marks

1 hour 15 min

## **Biology Paper 1**

B1 = Cell structure and transport  
B2 = Cell division  
B3 = Organisation and the digestive system  
B4 = Organising animals and plants  
B5 = Communicable diseases  
B6 = Preventing and treating disease  
B7 = Non-communicable diseases  
B8 = Photosynthesis  
B9 = Respiration

## **Chemistry Paper 1**

C1 = Atomic structure  
C2 = The periodic table  
C3 = Structure and bonding  
C4 = Chemical calculations  
C5 = Chemical changes  
C6 = Electrolysis  
C7 = Energy Changes

## **Physics Paper 1**

P1 = Conservation and dissipation of energy  
P2 = Energy transfer by heating  
P3 = Energy resources  
P4 = Electric circuits  
P5 = Electricity in the home  
P6 = Molecules and matter  
P7 = Radioactivity

## Biology Paper 2

B10 = The human nervous system  
B11 = Hormonal co-ordination  
B12 = Reproduction  
B13 = Variation and evolution  
B14 = Genetics and evolution  
B15 = Adaptations,  
interdependence and  
competition  
B16 = Organising an ecosystem  
B17 = Biodiversity and  
ecosystems

## Chemistry Paper 2

C8 = Rates and  
equilibrium  
C9 = Crude oil and fuels  
C10 = Chemical analysis  
C11 = The Earth's  
atmosphere  
C12 = The Earth's  
resources

## Physics Paper 2

P8 = Forces in balance  
P9 = Motion  
P10 = Forces and  
motion  
P11 = Wave properties  
P12 = Electromagnetic  
waves  
P13 =  
Electromagnetism

# GCSE Combined Science

## Double Award Grading System

Students sit all 6 exams at the end of Year 11.

The scores from all 6 papers are added up to give a mark out of 420.

This score generates the science double award grade.



## Tiers of Entry

Higher Tier - Students can be awarded grades from 9-9 to 4-3

Foundation tier- Students can be awarded grades from 5-5 to 1-1



# Year 11 Mock Exams

w/c Monday 3<sup>rd</sup> November Paper 1 Biology,  
Paper 1 Chemistry, Paper 1 Physics

w/c Monday 23<sup>rd</sup> February Paper 2 Biology,  
Paper 2 Chemistry, Paper 2 Physics

# GCSE Combined Science: Trilogy <sup>8464</sup>

[Specification](#) [Planning resources](#) [Teaching resources](#) [Assessment resources](#) [Key dates](#)

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Relevance

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Search resources



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Resource Type



- ☐ Centre Declaration Forms (4)
- ☐ Examiner Reports (51)
- ☐ Examiners Reports (12)
- ☐ Grade Descriptors (1)
- ☐ Mark Schemes (86)
- ☐ Notes and Guidance (4)
- ☐ Practice Questions (2)
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Component Code



Using our assessment tools to plan and teach

/resources/assess/using-our-assessment-tools



Add to favourites



Biology - Question paper (Foundation) : Paper 1 Biology - June 2023

Published 07 Dec 2024 | 1.58 MB | PDF



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Science - Question paper (Higher): Paper 1 Biology - June 2024

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NEW



Science - Question paper (Higher): Paper 1 Physics - June 2024

Published 11 Jul 2025 | 1.91 MB | PDF



Add to favourites

NEW



Science - Question paper (Higher): Paper 1 Chemistry - June 2024

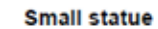
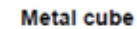


NEW

Mixture of multiple choice, structured, closed short answer, and open response.

There are 21 Required Practicals across the 3 disciplines. Students will be examined on a selection of these practicals.

A student wants to calculate the density of the two objects shown in the figure below.



Describe the methods that the student should use to calculate the densities of the two objects.

[illegible]

(Total 6 marks)

AQA

Please write clearly in block capitals.

Centre number

Candidate number

Surname \_\_\_\_\_

Forename(s) \_\_\_\_\_

Candidate signature \_\_\_\_\_

I declare this is my own work.

# GCSE

## COMBINED SCIENCE: TRILOGY

### Foundation Tier

### Biology Paper 2F

Friday 9 June 2023

Afternoon

Time allowed: 1 hour 15 minutes

**Materials**

For this paper you must have:

- a ruler
- a scientific calculator.

**Instructions**

- Use black ink or black ball-point pen.
- Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- Answer all questions in the spaces provided.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.
- In all calculations, show clearly how you work out your answer.

**Information**

- The maximum mark for this paper is 70.
- The marks for questions are shown in brackets.
- You are expected to use a calculator where appropriate.
- You are reminded of the need for good English and clear presentation in your answers.

For Examiner's Use	
Question	Mark
1	
2	
3	
4	
5	
6	
7	
TOTAL	

5 0 8 2 3 5 4 0 8 2 7 0 1
88464/B/2F

# Physics Equations Sheet

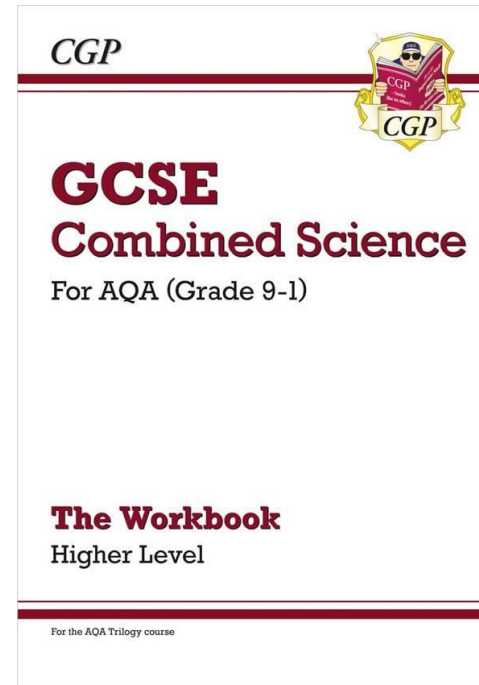
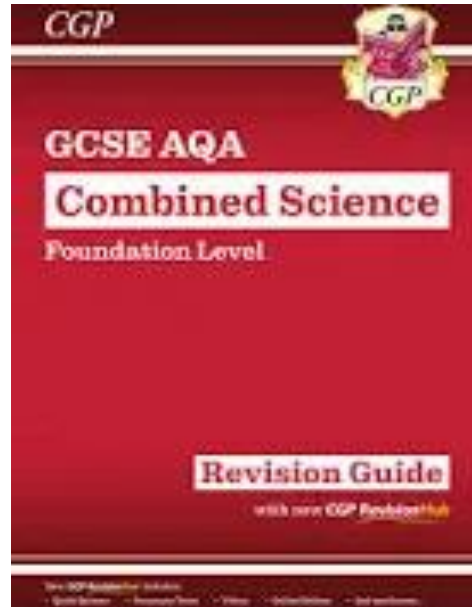
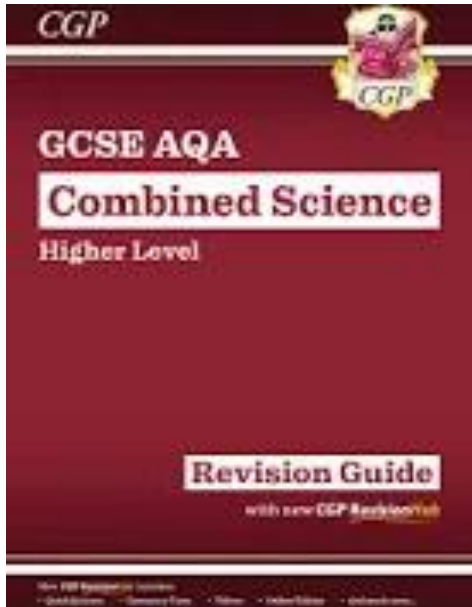
## GCSE Combined Science: Trilogy (8464) and GCSE Combined Science: Synergy (8465)

FOR USE IN JUNE 2023 ONLY

HT = Higher Tier only equations

kinetic energy = $0.5 \times \text{mass} \times (\text{speed})^2$	$E_k = \frac{1}{2} m v^2$
elastic potential energy = $0.5 \times \text{spring constant} \times (\text{extension})^2$	$E_e = \frac{1}{2} k e^2$
gravitational potential energy = mass $\times$ gravitational field strength $\times$ height	$E_p = m g h$
change in thermal energy = mass $\times$ specific heat capacity $\times$ temperature change	$\Delta E = m c \Delta \theta$
power = $\frac{\text{energy transferred}}{\text{time}}$	$P = \frac{E}{t}$
power = $\frac{\text{work done}}{\text{time}}$	$P = \frac{W}{t}$
efficiency = $\frac{\text{useful output energy transfer}}{\text{total input energy transfer}}$	
efficiency = $\frac{\text{useful power output}}{\text{total power input}}$	
charge flow = current $\times$ time	$Q = I t$
potential difference = current $\times$ resistance	$V = I R$
power = potential difference $\times$ current	$P = V I$
power = (current) $^2 \times$ resistance	$P = I^2 R$
energy transferred = power $\times$ time	$E = P t$

	energy transferred = charge flow $\times$ potential difference	$E = Q V$
HT	potential difference across primary coil $\times$ current in primary coil = potential difference across secondary coil $\times$ current in secondary coil	$V_p I_p = V_s I_s$
	density = $\frac{\text{mass}}{\text{volume}}$	$\rho = \frac{m}{V}$
	thermal energy for a change of state = mass $\times$ specific latent heat	$E = m L$
	weight = mass $\times$ gravitational field strength	$W = m g$
	work done = force $\times$ distance (along the line of action of the force)	$W = F s$
	force = spring constant $\times$ extension	$F = k e$
	distance travelled = speed $\times$ time	$s = v t$
	acceleration = $\frac{\text{change in velocity}}{\text{time taken}}$	$a = \frac{\Delta v}{t}$
	(final velocity) $^2$ – (initial velocity) $^2$ = $2 \times$ acceleration $\times$ distance	$v^2 - u^2 = 2 a s$
	resultant force = mass $\times$ acceleration	$F = m a$
HT	<b>momentum = mass <math>\times</math> velocity</b>	<b><math>p = m v</math></b>
	period = $\frac{1}{\text{frequency}}$	$T = \frac{1}{f}$
	wave speed = frequency $\times$ wavelength	$v = f \lambda$
HT	<b>force on a conductor (at right angles to a magnetic field) carrying a current = magnetic flux density <math>\times</math> current <math>\times</math> length</b>	<b><math>F = B I l</math></b>

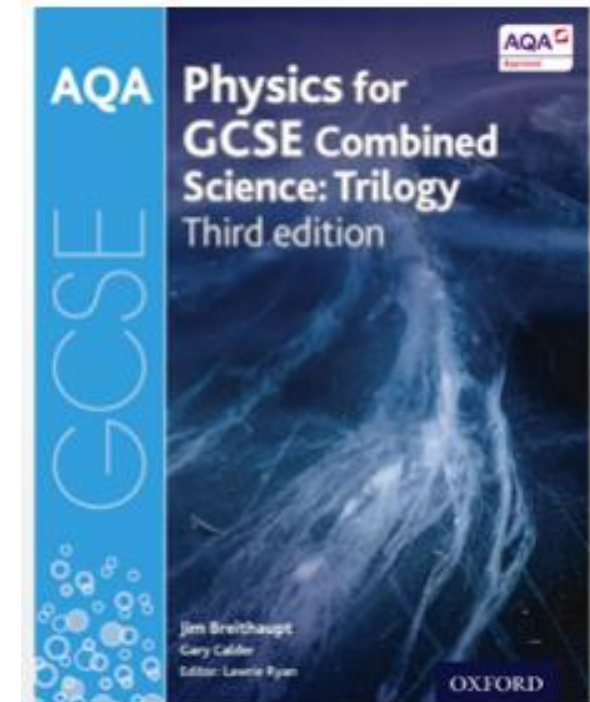
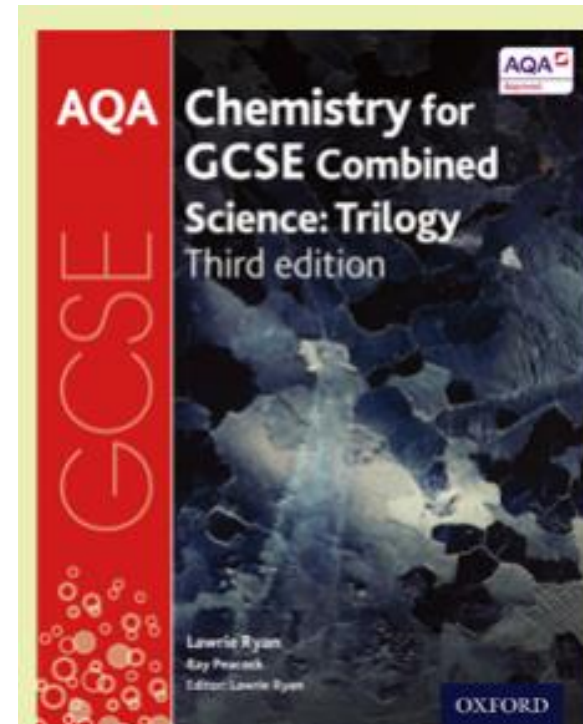
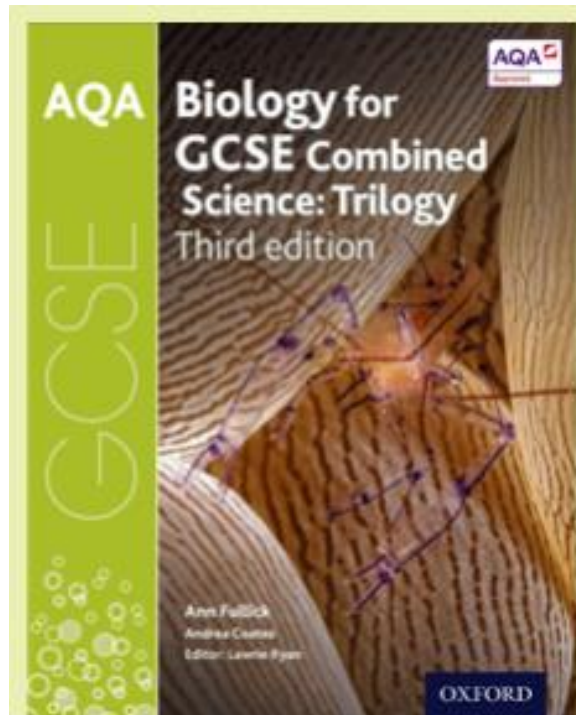


Revision guides available on ParentPay for £6.75 each

Workbooks also available on ParentPay for £7.75 each



Online textbooks are available to view on the Kerboodle website



# Sparx Science

Personalised  
science homework  
for every student

The screenshot displays the Sparx Science interface for a student named Adam Smith. The top navigation bar includes the Sparx Science logo, a subject dropdown (10x/Sc2), a 'Need help?' link, and the student's name. The main content area is titled 'Hand-in' and shows a calendar view of weeks from Week 28 to Week 39. Below this, a table lists homework assignments with columns for Name, Completion, Working time, Completion day, and Answers. The table shows several assignments, some marked as 'Incomplete' and others as 'View'. The bottom section of the interface shows a question about a plant cell diagram. The diagram is a rectangular plant cell with various organelles labeled A through G. The question asks the student to identify the part of the plant where photosynthesis happens and which label shows this part of the cell.

**Sparx Science** 10x/Sc2 [Need help?](#) Adam Smith

### Hand-in

< Week 28 > Week 34 Week 35 Week 36 Week 37 Week 38 **Week 39** >

Set date/time: Tue 23rd May 9:00 AM Due date/time: Tue 6th Jun 9:00 AM ✓ Compulsory completion: 27/30

Name	Completion	Working time	Completion day	Answers
10x/Sc2	0%	0h 0m	Incomplete	<a href="#">View</a>
10x/Sc2	0%	0h 0m	Incomplete	<a href="#">View</a>
10x/Sc2	0%	0h 47m	Incomplete	<a href="#">View</a>
10x/Sc2	100%	1h 26m	2 days early	<a href="#">View</a>
10x/Sc2	100%	0h 56m	1 day early	<a href="#">View</a>
10x/Sc2	100%	0h 46m	1 day early	<a href="#">View</a>
10x/Sc2	100%	0h 42m	Hand-in day	<a href="#">View</a>
10x/Sc2	100%	1h 17m	1 day early	<a href="#">View</a>
10x/Sc2	100%	1h 44m	2 days early	<a href="#">View</a>
10x/Sc2	100%	1h 52m	1 day early	<a href="#">View</a>
10x/Sc2	100%	1h 16m	1 day early	<a href="#">View</a>
10x/Sc2	100%	1h 1m	1 day early	<a href="#">View</a>

**Sparx Science** Adam Smith

Q1 Q2 Q3 Q4 Q5 Q6 **Q7** Q8 Q9 Q10 Q11 Q12 Q13

7.

Look at the diagram of a plant cell.

a) Name the part of the plant where photosynthesis happens.

Enter answer...

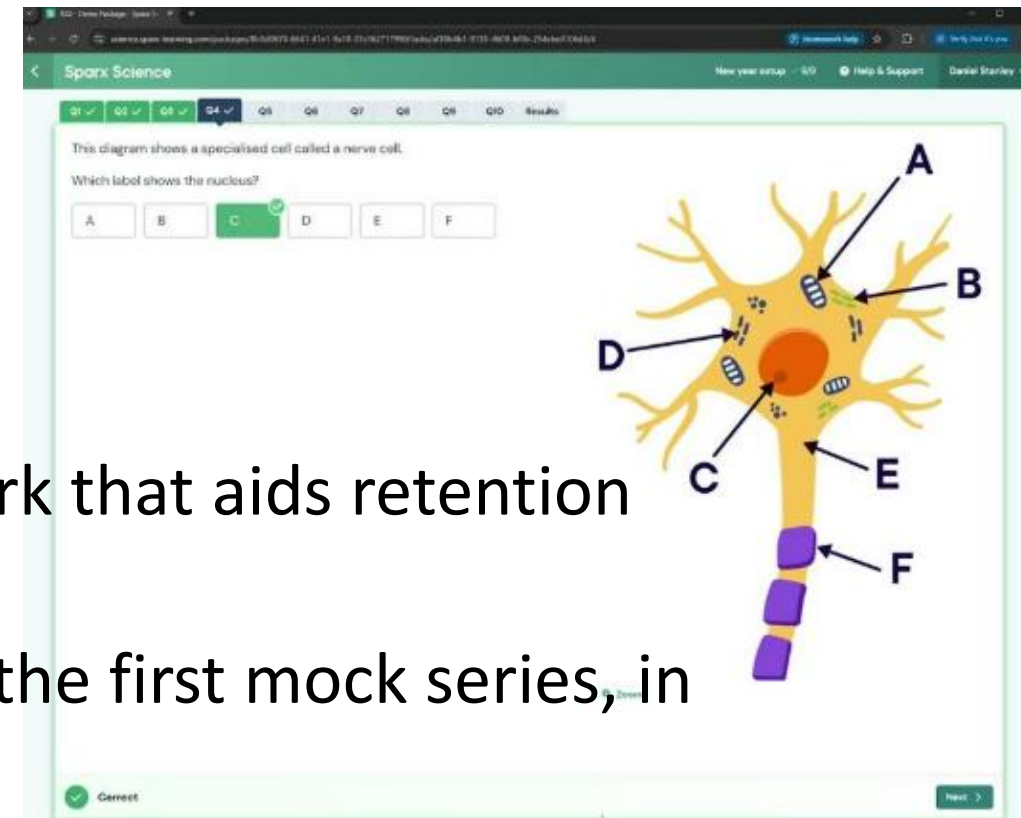
b) Which label shows this part of the cell?

A B C D E F

[I don't know](#) [Periodic Table](#) [Submit](#)

# What is Sparx Science?

- Sparx Science provides personalised homework that aids retention and recall.
- Teachers will set topics that are coming up in the first mock series, in November.
- Sometimes science questions may challenge students, however where this is the case Sparx provides unique support to fill knowledge gaps or guide them through application of scientific ideas.



# How can you help?

- Provide a quiet space for your child to focus on their homework, minimising distractions where possible.
- Encourage your child to start their homework early so they can get support before the deadline if they are stuck.
- Sparx Science will automatically adjust the level of questions based on your child's answers, please try not to answer the questions for them, instead ensure they are carefully reading the support and using this information to answer the questions.

# Key details

- Students log in at [app.sparx-learning.com](https://app.sparx-learning.com). They will need to find their school and log in using their Sparx Maths details.
- Homework will be handed out on Tuesday every week, and collected on Monday
- Each Sparx Science homework should take 1 hour.

## After School Science Revision Classes

Every Monday 3pm-4pm starting this Monday 22<sup>nd</sup>  
September.