

# AQA GCSE Combined Science Trilogy – Revision Hub

## Key Resources

- Available on Microsoft Teams: Year 10/ Year 11 Curriculum – Science – Files
  - Past exam papers, and mark schemes, available at:  
<https://www.physicsandmathstutor.com/past-papers/gcse-science/>
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## Biology – Paper 1 & 2: core concepts to revise

Cell structure and organisation • Photosynthesis and respiration • Enzyme function • Transport in cells and organisms • Tissues and organs • Gas exchange systems • The circulatory system • Excretion and homeostasis • Nervous and endocrine systems • Reproduction

To Do:

- Work through knowledge organisers for each topic – look, write, cover, correct
  - Create flashcards for: organelles, enzyme names, hormone functions, plant and animal adaptations
  - Complete past paper questions (focus on 6-mark extended response questions)
  - Practise drawing and labelling: plant and animal cells, transport across membranes, blood vessels, neurone structure, reproductive systems
  - Use 16-mark paper questions to develop extended answers
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## Chemistry – Paper 1 & 2: core concepts to revise

Atomic structure and the periodic table • Bonding and structure • States of matter • Chemical reactions • Quantitative chemistry (moles) • Acids, bases and salts • Oxidation and reduction • Thermochemistry • The rate of reaction • Equilibrium • Crude oil and organic chemistry • Polymers and resins

To Do:

- Practise writing balanced chemical equations – use oxidation numbers for redox reactions
- Create a periodic table summary: groups, trends, element properties, electron configurations
- Work through mole calculations step-by-step – use formula triangles for clarity
- Complete practical investigations questions (rates of reaction, thermal decomposition, precipitation reactions)
- Revise bonding types: ionic, covalent, metallic – link to properties and structure

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## Physics – Paper 1 & 2: core concepts to revise

Energy transfers and conservation • Waves and the electromagnetic spectrum • Electricity and circuits • Forces and motion • Pressure • Thermodynamics • Magnetism and electromagnetism • Particle model of matter • Sound waves • Forces and Newton's laws

To Do:

- [ ] Practise calculations:  $F = ma$ , power, energy, electrical resistance, wave equations
- [ ] Draw and label: circuit diagrams, wave diagrams, free body force diagrams, magnetic field patterns
- [ ] Work through equations sheet – ensure you can rearrange and apply all given formulas
- [ ] Complete past paper questions (focus on 6-mark extended response questions)
- [ ] Learn definitions precisely – use key vocabulary in written answers

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## General Exam Preparation Strategies

Strategy	What to Do
Knowledge Check	Go back over all knowledge organisers and textbook notes from years 9,10 & 11
Active Recall	Test yourself with past paper questions without looking at notes first
Practise Writing	Complete full exam papers under timed conditions – especially 6-mark and extended response questions
Concept Mapping	Create links between topics (e.g., photosynthesis links to respiration; forces link to energy)
Tackle Difficult Topics	Identify topics you find challenging – revisit lessons, create summary cards, complete targeted practice
Revision Resources	Use: knowledge organisers, past papers, exam mark schemes, worked examples, video tutorials

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## Exam Paper Structure

- Six papers in total (Biology, Chemistry, Physics), with two papers per subject, each 1 hour 15 mins and 70 marks.
- Question Types:
  - Closed: Multiple choice, link boxes, sentence completion, labelling.

- Open: Short answer, calculations, diagram drawing/labelling, extended responses.
- Assessment Objectives (AOs):
  - AO1 (40%): Knowledge & understanding.
  - AO2 (40%): Application of knowledge & understanding.
  - AO3 (20%): Analysis, interpretation, evaluation, conclusions.

#### Tier Differences (Foundation & Higher)

- Foundation Tier – higher proportion of multiple-choice/short answers; scaffolding of questions.
- Higher Tier – contains standard, standard/high, and high demand questions, stretching students for the top grades.
- Common Questions – around 30% of marks are on common questions, focused around grades 4-5.

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### Key Reminders

- ✓ Read questions carefully – underline command words (explain, calculate, describe, evaluate)
- ✓ Show all working in calculations – you can gain marks for method
- ✓ Use correct scientific terminology in written answers
- ✓ Check the mark allocation – this guides answer length