

Parent revision support guide.
GCSE Edexcel Combined Science

This guide is to help you support your young person in the preparation for their GCSE science exam.

What your young person is preparing for:

6 exam papers
1 hour 45 mins, 100 marks each

Foundation Tier, grades achievable 1 - 5
or
Higher Tier, grades achievable 4 - 9

Every mark your young person gains contributes to an overall score out of 600 that will be awarded as 3 Separate GCSE grades in Biology, Chemistry and Physics

Biology Paper 1: Tuesday, May 12, 2026, pm

Chemistry Paper 1: Monday, May 18, 2026, am
HALF TERM

Physics Paper 1: Tuesday, June 2, 2026, am.

Biology Paper 2: Monday, June 8, 2026, am.

Chemistry Paper 2: Friday, June 12, 2026, am

Physics Paper 2: Monday, June 15, 2026, am

Every mark counts
We want to work with you to support your young person to achieve their best possible grades in GCSE Science

How can you help?

(without any science knowledge)

Encourage revision **little and often** rather than cramming

- Ask them to **explain a topic out loud** (teaching you shows their learning)
- Help them to **focus and devote time** in **quiet and calm** space to revise their learning
- Test using **exam questions**, not just rewriting notes
- Encourage **marking with mark schemes, noting the keywords and processes looked for by the examiners**
- Focus on **weak topics**, not favourites.
- Describe required practical's, **method, variables, equipment, graphs.**

Recommended Weekly Revision Structure

- Use a **revision timetable**
- 2 – 3 sessions per subject per week, 20 – 30 minutes each.
- A mix of learning videos/notes
- Practise questions
- Reviewing mistakes

Exam tips to reinforce

- Always **read the question** carefully
- Check **command** words, think what they want you to do (**describe, explain, calculate**)
- Use key scientific terms
- **Show working** in calculations, ensure you get every mark
- Use the number of marks as a guide e.g. **3 marks, 3 bullet points**

Best Free Revision Resources

Sparx science

Flashcards e.g. Quizlet

BBC Bitesize

Great for learning + revising content, short explanations, videos + quizzes

Physics and Maths Tutor

Best for topic-by-topic exam questions, mark schemes, revision notes

Required practical summaries

Save my exams

Excellent, clear notes, diagrams, exam style Q's

Seneca

Focused topic summary with targeted Q's

Free Science lessons

Ideal for visual learners and tricky topics, clear topic by topic video explanations

Ask your young person about these and other resources we have shared with them; we have given them a selection so they can pick what works best for them

Final reminder

Your young person is familiar with resources, hopefully they will take the opportunity to use them to revise

Little and often is key

Consistency beats intensity

Past paper questions are more important than rereading/rewriting notes

Confidence grows with practice

We look forward to seeing your young person experience the success their efforts deserve

Anything else we can do to help, please ask

Biology Paper 1 Topics

Key Concepts

Cells, Microscopy, Enzymes, Diffusion, Osmosis, Active Transport

Cells and Control

Mitosis, Cell Division/Growth, Stem Cells, Nervous System, Synapses, Reflexes.

Brain and eye structures, diseases and treatments

Genetics

Sexual Reproduction, Meiosis, DNA, Genetic Diagrams, Variations, Mutations, Genome Proj

Asexual vs sexual reproduction, protein synthesis (transcription & translation), Gregor Mendel, sex-linked disorders

Natural Selection and Genetic

Modification

Natural Selection, Evidence for Evolution, Classification, Selective Breeding, Genetic Engineering

Alfred Wallace, pentadactyl limbs, tissue culture, human population and agriculture

Health, Disease & Development of Medicines

Health, Disease, STI's, Fighting Disease, Immunity, Immunisation, Antibiotics, Medicines, Non-Communicable Diseases, Obesity Cardiovascular Disease

Investigating antibiotics, aseptic technique, virus lifecycle, plan diseases and defences, herd immunity, monoclonal antibodies

Biology Paper 2 Topics

Key Concepts

Cells, Microscopy, Enzymes, Diffusion, Osmosis, Active Transport

Plant Structures & Their Functions

Photosynthesis, Transport, Transpiration

Leaf structure, plant adaptations, plant hormones

Animal Coordination, Control & Homeostasis

Hormones, The Menstrual Cycle, Contraception, Homeostasis, Diabetes

Thermoregulation, osmoregulation, kidneys

Exchange & Transport in Animals

Specialised Exchange Surfaces, Alveoli, Blood Vessels, Heart, Respiration

Fick's law

Ecosystems and Material Cycles

Ecosystems and the Factors Affecting, Interdependence, Human Impacts on Biodiversity, Carbon/Water/Nitrogen Cycles

Trophic levels, food security, indicator species, decomposition

Chemistry Paper 1 Topics

Key Concepts

Writing Equations, Hazards, The Atom History/Structure, Using the Periodic Table, Isotopes, Electronic Configuration, Bonding, Types of Structure/Properties Ionic/Metallic/Giant Covalent/Simple Molecular, Calculating Empirical Formula/Concentration

States of Matter

Changes, Purity, Distillation, Filtration, Crystallisation, Chromatography, Potable Water

Chemical Changes - Acids

Neutralisation, Indicators, reactions with metals/oxides/hydroxides/carbonates, Soluble and Insoluble Salts, Preparing Dry Sample of Crystals

Chemical Changes - Electrolysis

Predicting products, Electrolysis of copper sulfate

Extracting Metals and Equilibria

Reactivity Series, Carbon Extraction, Electrolysis Extraction, Recycling, Life Cycle Assessments

Separate Chemistry 1:

Transition metals, alloys, corrosion, quantitative analysis, yield, Avogadro's law, dynamic equilibria, Haber process

Chemistry Paper 2 Topics

Key Concepts – same as paper 1

Groups of the Periodic Table

Group 1 / 7 / 0 their Properties and Reactions

Rates of Reaction & Energy Changes

Measuring rates, Calculating Rates, Collision Theory, Catalysts, Endothermic/Exothermic, Bond Energies, Activation Energy

Fuels and Earth Science

Fractional Distillation, Hydrocarbons, Combustion, Pollutants, Cracking,

Atmosphere, Greenhouse Effect, Climate Change

Separate Chemistry 2:

Qualitative analysis, ion tests, unknown salts, hydrocarbons, alkanes, alkenes, polymers, alcohols, carboxylic acids, nanoparticles

Physics Paper 1 Topics

Motion, Forces & Conservation of Energy

Distance, Displacement, Speed, Velocity, Acceleration, Distance/ Time & Velocity Time Graphs, Weight, Newtons 3 Laws, Resultant Forces, Stopping Distances, Reaction Times, Energy Stores, Conservation of Energy, Energy Transfers, Kinetic/Gravitational Potential Energy Stores & Calculations, Efficiency, Energy Resources Pros and Cons

Estimating stopping distances, work done

Waves & the Electromagnetic Spectrum

Wave properties, Speed, Behaviours, Refraction, EMS spectrum, Uses and Dangers

Depth/distance from velocity, reflection, transmission, absorption, interfaces, waves in a solid, human ear, ultrasound, infrasound, lenses, thermal energy

Radioactivity

Atomic Model, Isotopes, Alpha/Beta/Gamma Radiation, Nuclear Equation, Background Radiation, Half Life, Irradiation, Contamination

Uses e.g. smoke alarm, ionising radiation, PET scanners, fission, fusion

Astronomy:

Planets, satellites, stars, solar system, comets, Big Bang theory, Steady State theory, red-shift, observing the universe

Physics Paper 2 Topics

Forces & Energy

Energy Transfers & Systems, Forces, Work Done, Wasted Energy, Power

Rotation, moments, levers, gears, lubrication

Electricity & Circuits

Current, Potential Difference, Resistance, I-V Graphs, Devices, Series, Parallel, Energy in Circuits, Electricity in the Home, Electrical Safety, Transformers, National Grid

Static Electricity:

Insulator, electrons, charges, earthing, electric fields

Magnetic Fields

Magnets, Magnetic Fields, Permanent/Induced, Electromagnets/Solenoid

Motor effect, ACDC induction, microphones, transformers, power transmission

Matter

Density, Kinetic Theory & States of Matter, Specific Heat Capacity, Specific Latent Heat, Particle Motion in Gases, Forces & Elasticity

Gas & liquid pressure, atmospheric pressure, upthrust

