

13th May 2026

Dear Parent/Carer,

Year 10 Science GCSE Revision

Your child is currently studying towards their Science GCSE's. In order to prepare them for these exams, they will complete a mock exam in Biology, Chemistry and Physics. The mock exams will take place in the weeks beginning 15th June and 22nd June and each paper will be 1 hour 45 minutes.

The topics students will need to revise are those from Paper 1, specifically:

Biology: Cell Biology; Organisation; Infection and Response; Bioenergetics.

Chemistry: Atomic structure and the periodic table; Bonding, structure and the properties of matter; Quantitative chemistry; Chemical changes; Energy changes.

Physics: Energy; Electricity; Particle model of matter; Atomic structure.

Thorough preparation for these is vital for students to achieve well and in order for us to pinpoint genuine areas of weakness to work on over the weeks before the final exams. If students prepare fully, it is likely to put them in a significantly better position for the exams they will sit in the summer of Year 11.

At the end of this letter is a list of topics students need to revise, broken down and starting next week, so they are able to revise everything before the mock exams begin. There is also a list of exam tips to help them to achieve success. It is highly recommended that students use a revision guide alongside their class notes when revising. If they are unsure, students should ask their class teacher which revision guide is suitable for them.

Kindest Regards,

Rebecca Moore

Curriculum Lead for Science

Week Beginning	Biology topics to revise (tick when complete!)
18 th May	<ul style="list-style-type: none"> ○ Microscopes and magnification ○ Animal and plant cells ○ Specialised cells ○ Mitosis ○ Stem Cells ○ Differentiation ○ Diffusion ○ Osmosis ○ Active transport ○ REQUIRED PRACTICALS – MICROSCOPES AND OSMOSIS
25 th May	<ul style="list-style-type: none"> ○ The digestive system ○ Enzymes and enzymes in digestion ○ The heart and blood vessels ○ Components of the blood ○ Cardiovascular disease and treatments ○ Effect of lifestyle on health (risk factors eg smoking and alcohol) ○ Cancer ○ REQUIRED PRACTICALS - ENZYMES
1 st June	<ul style="list-style-type: none"> ○ Plant tissues and structure of the leaf ○ Root hair cells ○ Xylem (and transpiration) ○ Phloem (and translocation) ○ Viral diseases ○ Bacterial diseases ○ Fungal and Protist diseases ○ Plant disease ○ Plant defence responses ○ Photosynthesis ○ Factors affecting rate of photosynthesis ○ How plants use glucose
8 th June	<ul style="list-style-type: none"> ○ Respiration (aerobic and anaerobic) ○ Response to exercise ○ Metabolism ○ REQUIRED PRACTICALS - PHOTOSYNTHESIS ○ The immune system ○ Vaccination ○ Antibiotics and painkillers ○ Development of drugs ○ Monoclonal antibodies (Higher Tier only)

Week Beginning	Chemistry topics to revise (tick when complete!)
18 th May	<ul style="list-style-type: none"> <input type="checkbox"/> Atoms, elements and compounds <input type="checkbox"/> Mixtures and separating mixtures <input type="checkbox"/> Development of the model of the atom <input type="checkbox"/> Structure of the atom <input type="checkbox"/> The periodic table <input type="checkbox"/> Metals and non-metals <input type="checkbox"/> Group 0, 1 and 7 <input type="checkbox"/> Transition metals
25 th May	<ul style="list-style-type: none"> <input type="checkbox"/> Bonding <input type="checkbox"/> Ionic bonding and properties of ionic compounds <input type="checkbox"/> Covalent bonding and properties of covalent compounds (small molecules, giant covalent structures) <input type="checkbox"/> Metallic bonding <input type="checkbox"/> States of matter <input type="checkbox"/> Metals and alloys <input type="checkbox"/> Carbon structures <input type="checkbox"/> Particles and nanoparticles
1 st June	<ul style="list-style-type: none"> <input type="checkbox"/> Conservation of mass <input type="checkbox"/> Relative formula mass <input type="checkbox"/> Mass Changes when the reactant or product is a gas <input type="checkbox"/> Moles (Higher Tier only) <input type="checkbox"/> <u>Amount</u> of substances in equations <input type="checkbox"/> Reactions of metals and acids <input type="checkbox"/> Neutralisations of acids and salt production <input type="checkbox"/> Soluble salts <input type="checkbox"/> pH Scale and neutralisations <input type="checkbox"/> Titrations <input type="checkbox"/> Strong and weak acids (Higher Tier only) <input type="checkbox"/> Exothermic and endothermic reactions <input type="checkbox"/> Bond energies (Higher Tier only) <input type="checkbox"/> REQUIRED PRACTICAL - Measuring energy changes <input type="checkbox"/> Cells and batteries <input type="checkbox"/> Fuel cells
8 th June	<ul style="list-style-type: none"> <input type="checkbox"/> Balancing equations using moles (Higher Tier only) <input type="checkbox"/> Limiting reactants (Higher Tier only) <input type="checkbox"/> Percentage yield and atom economy <input type="checkbox"/> Titration calculations (Higher Tier only) <input type="checkbox"/> Reactivity series and metal oxides <input type="checkbox"/> Extracting metals and reduction <input type="checkbox"/> Oxidation and reduction in terms of electrons (Higher Tier only) <input type="checkbox"/> Electrolysis <input type="checkbox"/> Half equations (Higher Tier only) <input type="checkbox"/> REQUIRED PRACTICALS - Making salts, Electrolysis

Week Beginning	Physics topics to revise (tick when complete!)
18 th May	<ul style="list-style-type: none"> <input type="checkbox"/> Energy stores and systems <input type="checkbox"/> Changes in energy (KE, GPE, elastic potential energy) <input type="checkbox"/> Thermal energy and specific heat capacity <input type="checkbox"/> Energy transfers and efficiency <input type="checkbox"/> National and global energy resources <input type="checkbox"/> REQUIRED PRACTICALS – Specific heat capacity, Thermal insulators
25 th May	<ul style="list-style-type: none"> <input type="checkbox"/> Circuit diagram symbols <input type="checkbox"/> Electrical charge and current <input type="checkbox"/> Current, resistance and potential difference <input type="checkbox"/> Resistors <input type="checkbox"/> LDRs and thermistors <input type="checkbox"/> Series and parallel circuits <input type="checkbox"/> DC and AC <input type="checkbox"/> Mains electricity <input type="checkbox"/> Power <input type="checkbox"/> The national grid <input type="checkbox"/> Static charge and electric field <input type="checkbox"/> REQUIRED PRACTICALS – Investigating I-V characteristics
1 st June	<ul style="list-style-type: none"> <input type="checkbox"/> Radioactive decay <input type="checkbox"/> Nuclear radiation and uses of nuclear radiation <input type="checkbox"/> Nuclear equations <input type="checkbox"/> Half-life and radioactive decay <input type="checkbox"/> Radioactive contamination <input type="checkbox"/> Hazards of radiation – background radiation, different half-lives of radioactive isotopes, uses of nuclear radiation <input type="checkbox"/> Nuclear fission and fusion
8 th June	<ul style="list-style-type: none"> <input type="checkbox"/> Density <input type="checkbox"/> Changes of state <input type="checkbox"/> Internal energy <input type="checkbox"/> Specific latent heat <input type="checkbox"/> Particle motion in gases <input type="checkbox"/> Pressure in gases <input type="checkbox"/> Increasing the pressure of gases (Higher Tier only) <input type="checkbox"/> REQUIRED PRACTICALS – Investigating density <input type="checkbox"/> The structure of the atom <input type="checkbox"/> Mass number, atomic number and isotopes <input type="checkbox"/> Development of the model of the atom

Tips for success in the Mock exams and beyond

1. Start your revision early – this will mean you have enough time to revise everything.
2. If you are unsure of something, find your teacher in advance so that they can help you.
3. Use a revision guide.
4. Use the science revision page to find lots of useful revision resources: [Home](#). The link for this page can also be found here (underneath Revision): <https://www.elycollege.com/page/?title=Examinations+%26amp%3B+Revision&pid=21>
5. Practice applying your knowledge to questions – use the CGP workbooks and/or practice exam questions which you can find on the AQA website.
6. Sign up and use this website as an extra (don't use it to replace all your revision though!): <https://www.senecalearning.com/>
7. Preparation is key – if you prepare fully, the feedback you get after it will be more relevant to you and will help you to pinpoint actual areas of weakness rather than areas you just didn't revise fully.