GCSE SCIENCE PAPER 1 CONTENT- each subject is a separate exam

The topics are listed below. You will be tested on some or all of these. These topics correspond to topics in your online textbooks on Kerboodle. You can also use bbc bitesize webiste, revision guides and for videos on youtube use "Free science videos." Don't forget these topics include some of the required practicals. ALWAYS ENSURE WHEN USING REVISION MATERIAL THAT IT IS FOR AQA COMBINED SCIENCE TRILOGY.

Biology Paper 1 Topics 1-4 from AQA Combined Science Specification	**Chemistry Paper 1** Topics 8-12 from AQA Combined Science Specification	**Physics Paper 1** Topics 18-21 from AQA Combined Science Specification
1. ***Cell biology-*** microscopes, animal and plant cells, prokaryotic cells, specialised cells, diffusion, osmosis, active transport, exchange, cell division, growth, differentiation, stem cells. 2. ***Organisation***- tissues and organs, digestive system, chemistry of food, enzymes, blood, blood vessels, heart, breathing and gas exchange, plant tissues and organs, transport in plants, evaporation and transpiration. 3. ***Infection and response***- communicable disease, pathogens, preventing infection, human defence response, bacterial, viral , fungal and protist disease, vaccination, antibiotics, painkillers, discovering and developing drugs, non-communicable disease, cancer, smoking, alcohol, diet and exercise. 4. ***Bioenergetics-*** photosynthesis, respiration, metabolism.	8. ***atomic structure and the periodic table-*** atomic structure, chemical equations, atoms, ions, separating mixtures, isotopes, history of the atom, development of the Periodic table, electronic structure, trends, group 1 and 7. 9. ***Bonding, structure and the properties of matter-*** states of matter, ionic bonding, covalent bonding, metals, giant structures. 10. ***Quantitative chemistry-*** calculations. 11. ***Chemical changes-*** reactivity series, displacement, extracting metals, salts, neutralisation, pH scale, electrolysis. 12. ***Energy Changes-*** exothermic and endothermic reactions, reaction profiles, bond energy calculation.	18. ***energy-*** energy stores, conservation of energy, energy and work, gravitational potential energy stores, kinetic energy stores, elastic energy stores, energy dissipation, energy and efficiency, electrical appliances, energy and power, energy transfer by heating, specific heat capacity, heating and insulating buildings, energy demands, energy resources. 19. ***electricity-*** circuits, potential difference, resistance, component characteristics, energy in the home, alternating current, cables and plugs, power and potential difference, appliances and efficiency. 20. ***Particle model of matter-*** density, states of matter, changes of state, internal energy, specific latent heat, gas pressure and temperature. 21. ***atomic structure***- atoms and radiation, discovery of the nucleus, alpha, beta, gamma radiation, activity and half life.
Required practicals: looking at cells with a microscope, investigating osmosis in plant cells, food tests, effect of pH on amylase, light intensity and rate of photosynthesis.	Required practicals: making salts, investigating electrolysis of a solution, investigating temperature changes.	Required practicals: measuring specific heat capacity, investigating resistance, investigating electrical components, measuring density of a solid object or liquid.