

**Combined Science Paper 2 -Timetable Use along side your revision checklists and keywords. There are three Paper 2 exams!**

Date	Unit	Section for revision	Revisi on book pages CGP	Time spent revising	Evidence in File	Issues identified	Action taken
	B6	<b>B6a Photosynthesis</b> , Biomass, cellulose. Chloroplast. endothermic reaction, food chain, gas exchange, glucose, guard cell, Lipid, palisade cell, photosynthesis, polymer, producer, protein, protist, respiration, starch, stoma, storage , organ, sucrose.	47				
	C13	<b>Group 1</b> , alkali metals, group (chemistry), periodic table, reactivity <b>Group 7</b> Bleach, diatomic, disinfectant, halide, halogen, salt	123- 124				
	P7	<b>Work and Power</b> , how work done can be measured, calculate work done, define power, calculate power, learn formula, rearrange equation.	180				
	B6	<b>B6b Factors that affect photosynthesis</b> Concentration, direct proportion, inverse proportion, inverse square law, limiting factor, linear relationship, rate	48				
	C13	<b>Halogen reactivity</b> , displacement reaction, oxidation, oxidised, redox, reduced, reduction <b>C13d Group 0</b> - inert, noble gas	125- 127				
	P8	<b>Objects affecting each other</b> , describe interactions between two objects, draw force diagrams to show all forces acting on objects, describe and calculate resultant forces, <b>vector diagrams</b> , use scale forces to find resultant forces, draw free body force diagrams, splitting a force into components.	181- 183				
	B6	<b>B6c Absorbing water and mineral ions</b> active transport, concentration gradient, diffusion, fluid, mineral ion, nitrate, osmosis, partially permeable, membrane, protein, root hair cell, wilt	49				

C14	<b>Rates of reaction, Factors affecting reaction rates, Investigating reaction rates</b> , Product, rate, reactant, variable, activation energy, endothermic, exothermic	128-132				
P9	<b>P9a Electric Circuits</b> , describe current, potential difference and resistance, Calculate total charge, identify circuit symbols, draw series and parallel circuits and compare and contrast, measure electrical current, describe the relationship between resistance, potential difference and current, the effect of temperature on resistance.	184-185				
B6	<b>B6d Transpiration and translocation</b> companion cell, lignin, phloem tissue, potometer, sieve tube/cell, translocation, transpiration, xylem vessel/cell	50-51				
C14	<b>Catalysts and activation energy</b> , active site, catalyst, denatured, enzyme, protein, reaction profile, substrate	133				
P9	<b>P9c</b> Describe a coulomb, Calculate charge Q and rearrange formula, relationship between current and flow of charge, calculate energy transferred and rearrange equation. <b>P9d Resistance</b> calculate resistance and rearrange the equation, adding resistors in series and parallel	184-185				
B7	<b>B7a Hormones</b> hormonal system, ovary, pancreas, pituitary gland, sex hormone, target organ, testis, thyroid gland. <b>B7b Hormonal control of metabolic rate</b> Adrenalin, fight-or-flight response, glycogen, metabolic rate, negative feedback, resting metabolic rate, thyroxine	52-53				
C15	<b>Exothermic and endothermic reactions, Energy changes in reactions</b> Displacement reaction, endothermic, exothermic, neutralisation, precipitation, reaction profile, activation energy, bond energy, covalent bond. Mole, reaction profile.	134-136				

P9	<b>P9e, More about resistance.</b> how potential difference affects current and resistance in fixed resistors, lamps and diodes; how light intensity and temperature affects resistance in LDRs and thermistors; how circuits are used to explore resistance. <b>P9f Transferring Energy</b> advantages and disadvantages of the heating effect, how to reduce unwanted energy transfer in wires, calculate energy transferred.	186-190				
B7	<b>B7c The menstrual cycle</b> Contraception, fertilisation, menopause, menstrual cycle, Menstruation, oestrogen, ovulation, period, pregnancy, progesterone, puberty <b>B7d Hormones and the menstrual cycle.</b> Assisted Reproductive Technology (ART), clomifene , therapy, corpus luteum, egg follicle, follicle-stimulating hormone (FSH), in vitro fertilisation (IVF), luteinising hormone.	54-55				
C16	<b>Hydrocarbons in crude oil and natural gas,</b> Crude oil, feedstock, finite resource, fossil fuel, hydrocarbon, natural gas, non-renewable, petrochemical	137				
P9	<b>P9g - Power,</b> calculate power and rearrange equation, calculate electrical power, <b>P9h - transferring energy by electricity,</b> difference between direct and alternating, for both current and voltage, <b>P9i - Electrical safety</b> - difference between live and neutral wires, safer circuits using earth wires and fuses.	191-193				
B7	<b>B7e Control of blood glucose</b> Diabetes, glucagon, homeostasis, insulin, type 1 diabetes <b>B7f Type 2 Diabetes</b> body mass index (BMI), correlation, type 2 diabetes, waist : hip ratio	56-58				
C16	<b>Fractional distillation of crude oil,</b> Condense, evaporate, fraction, fractional distillation, fractionating column, ignite, viscosity	137				
P10	<b>P10a Magnets and magnetic fields;</b> How are magnets used, Shape of magnetic fields, plotting magnetic fields, evidence of the earth magnetic field. <b>P10b Electromagnetism;</b> Describe factors that affect the strength of a magnetic field. Describe an electromagnet (permanent and temporary)	195-196, 198				

B8	<b>B8a Efficient transport and exchange</b> , aerobic respiration, alveolus, capillary, circulatory system, diffusion, excretion, gas exchange, metabolism, multicellular organism, surface area : volume (SA : V) ratio, urea <b>B8b The circulatory system</b> Antibody, artery, blood, capillary, erythrocyte, haemoglobin, heart, lymphocyte, phagocyte, plasma, platelet, pulse, red blood cell, valve , vein, white blood cell	59-62				
C16	<b>The alkane homologous series</b> , Alkane, general formula, homologous series, molecular formula, structural formula	138				
P10	<b>P10c Magnetic forces</b> - Fleming's left hand rule, the motor effect, Calculate the size of a force produced by a current in a magnetic field, rearrange the formula	197-198				
B8	<b>B8c The heart</b> Aorta, atrium, cardiac output, chamber, contract, deoxygenated blood, heart attack, heart rate, heart valve, impulse, oxygenated blood, pulmonary artery, pulmonary vein, septum, stroke volume, tendon, vena cava, ventricle. <b>B8d Cellular respiration, B8d Core Practical - Respiration rates.</b> aerobic respiration, anaerobic respiration, cellular respiration, exothermic, glucose, lactic acid, mitochondrion	63-66				
C16	<b>Complete and incomplete combustion.</b> Carbon monoxide, combustion, complete combustion, haemoglobin, incomplete combustion, oxidation, red blood cell, soot, toxic.	139				
P11	<b>P11a Transformers;</b> Calculate electrical power, calculate the current and voltage produced by a transformer, understand how transformers follow the law of energy conservation <b>P11b Transformers and energy</b> - how electricity is transmitted around the country, step up and step down transformers, how transformers work, factors that affect the size and direction of an induced potential difference.	199				

B9	<b>B9a Ecosystems</b> Abundance, community, ecosystem, food web, habitat, Interdependent, population, quadrat, resources, sample <b>B9b Abiotic factors and communities, Core Practical - Quadrats and transects</b> - abiotic factors, adaptation, belt transect, distribution, drought, pollutant, pollution	67				
C16	<b>Combustible fuels and pollution</b> , acid rain, impurity, oxide of nitrogen, pollutant, weathering	139				
P12	<b>P12a Particles and density</b> -arrangement of particles, kinetic theory, calculating density, investigating densities <b>P12b Energy and changes of state</b> - heating substances, specific heat capacity, analysing heating curves, defining specific latent heat.	200-201, 203				
B9	<b>B9c Biotic Factors and communities</b> Biodiversity, biotic factors, compete, competition, predation, predator-prey cycle <b>B9d Parasitism and mutualism</b> Host, mutualism, parasite, parasitism <b>B9e Biodiversity and humans</b> Eutrophication, fish farming, indigenous, native, non-indigenous, overfishing	68-69				
C16	<b>Breaking down hydrocarbons</b> , Alkene, catalyst, cracking, greenhouse gas. Saturated, unsaturated	140				
P12	<b>P12c Energy Calculations</b> , - calculating changes in thermal energy using specific heat capacity and specific latent of substances) <b>P12 c Core Practical</b> Investigating the properties of water.	202				
B9	<b>B9f Preserving biodiversity</b> Captivity, conservation, endangered, reforestation <b>B9g The water cycle</b> Desalination, distillation, potable, water cycle	70,72				
C17	<b>The early atmosphere, The changing atmosphere</b> Atmosphere, composition , volcanic activity, hypothesis, photosynthesis	141				
P12	<b>P12d Gas temperature and pressure</b> - Explain what causes gas pressure, how gas temperature affects its pressure, difference between temperature scales.	204				

B9	<b>B9h The Carbon Cycle</b> Biomass, carbon cycle, decay. Decomposer, faeces, fossil fuel <b>B9i The nitrogen cycle</b> crop rotation, manure, nitrate, nitrogen cycle, nitrogen-fixing bacteria	71,73			
	<b>The atmosphere today, Climate change</b> .Absorb, causal link, climate change, correlation, emit, global warming, greenhouse effect, greenhouse gas, infrared, resolution	142-144			
P13	<b>P13a Bending and stretching</b> , - Forces causing objects to change shape, difference between elastic and inelastic distortion, relationship between force and extension P13a Core Practical - Investigating springs; <b>P13b Extension and energy transfers</b> - describe the spring constant, calculating force needed to make a string extend, calculate work done in stretching a spring.	205-207			

This list is NOT EVERYTHING you need to know but it's a good start. Don't just use your revision guide; use your class notes also. The revision guide does not give enough information for grade 9!

#### Suggested activities:

1. Produce mind maps for each section, highlighting key words and their meanings.
2. Construct flow charts for processes; potential 6 mark questions.
3. Re draw diagrams and see if you can label them correctly. Do you know what each part does and how it helps?
4. Complete worksheets in the revision books & assess progress.
5. Draw out genetic crosses to calculate the 'chance' of inheriting a disease.
6. Key word definition check lists
7. Make flash card notes from your class notes.
8. Write any questions/ queries on a post it note and stick it on the relevant revision book pages. Then take it to your revision class and ask the teacher!
9. Work through sections on GCSE bitesize: You are following the EDEXCEL combined science course.
10. Practice 6 mark questions; don't forget SPG!
11. Complete practice calculations including your working out; if you check the answer and it is wrong discuss with a friend/ teacher by showing them your working.
12. Evaluate treatments/ processes; What are the advantages/ disadvantages? Can you give reasons for/ against the use of some treatments?
13. READ questions carefully and make sure you know what the instruction means; the mark scheme indicates if you have understood the question being asked.