Biology	Revised using carousel (tick)	Practiced Exam q's (tick)
Cell Biology		
Cell structure (animal, plant, bacterial cells)		
Cell division (mitosis and the cell cycle)		
Stem cells and their uses		
Diffusion, osmosis, active transport		
Organisation		
Digestive system and enzymes		
Blood, heart, and circulatory system		
Respiratory system and gas exchange		
Plant tissues, organs, and transpiration		
Non-communicable diseases (e.g., cancer, CHD)		
Infection and Response		
Pathogens (bacteria, viruses, fungi, protists)		
Immune system and vaccinations		
Drugs (e.g., antibiotics, painkillers)		
Bioenergetics		
Photosynthesis (equation, factors affecting)		
Respiration (aerobic, anaerobic, and metabolism)		
Homeostasis and Response		
Nervous system, reflexes		
Hormonal coordination (e.g., insulin, menstrual cycle)		
Controlling body temperature, water, and ion content		
Inheritance, Variation, and Evolution		
DNA, genes, and chromosomes		
Inheritance (dominant, recessive traits, Punnett squares)		
Evolution, natural selection, and genetic engineering		
Ecology		
Levels of organisation (producers, consumers)		
Adaptations, interdependence, and competition		
Biodiversity, ecosystems, and human impact (e.g., pollution, deforestation)		
Chemistry		
Atomic Structure and the Periodic Table		
Subatomic particles (protons, neutrons, electrons)		
Development of the periodic table		
Group 1, Group 7, Group 0 elements (alkali metals, halogens, noble gases)		
Bonding, Structure, and Properties of Matter		
Ionic, covalent, and metallic bonding		
Properties of giant covalent structures (e.g., diamond, graphite)		
States of matter and changing states		
Quantitative Chemistry		
Relative formula mass (Mr)		
The mole and calculations involving moles		
Conservation of mass, balancing equations		
Chemical Changes		
Reactivity series of metals		
Acids, alkalis, and neutralisation (pH scale)		

Electrolysis (of molten and aqueous solutions)		
Energy Changes		
Exothermic and endothermic reactions		
Reaction profiles and bond energy calculations		
The Rate and Extent of Chemical Change		
Factors affecting rate (temperature, concentration, surface area, catalysts)		
Reversible reactions and dynamic equilibrium		
Organic Chemistry		
Hydrocarbons (alkanes and alkenes)		
Crude oil, fractional distillation, and cracking		
Polymers (addition polymerisation)		
Chemical Analysis		
Pure substances and formulations		
Chromatography		
Identification of ions (tests for gases, flame tests)		
Chemistry of the Atmosphere		
Composition of the Earth's atmosphere (past and present)		
Greenhouse gases, climate change, carbon footprint		
Pollutants from combustion		
Using Resources		
Finite and renewable resources		
Water treatment		
Life cycle assessments, reducing waste		
Physics		
Energy		
Energy stores and transfers		
Kinetic and potential energy calculations		
Efficiency and energy resources (renewable and non-renewable)		
Electricity		
Circuit symbols and diagrams		
Current, voltage, resistance (Ohm’s Law)		
Series and parallel circuits		
Particle Model of Matter		
Density of materials		
Changes of state (melting, boiling)		
Internal energy and specific heat capacity		
Atomic Structure		
Structure of the atom		
Radioactivity (types of radiation, half-life, nuclear fission, fusion)		
Forces		
Contact and non-contact forces		
Resultant forces and vector diagrams		
Motion (speed, velocity, acceleration, distance-time graphs)		
Newton’s laws of motion		
Momentum, forces, and braking distance		
Waves		
Properties of waves (frequency, wavelength, amplitude)		
Transverse and longitudinal waves		

Electromagnetic spectrum (uses and dangers)		
Sound waves and ultrasound		
Magnetism and Electromagnetism		
Magnetic fields and electromagnets		
Motors and generators		
The motor effect		