AQA Combined Science Full revision checklist – Foundation paper

Biology		
Cell Biology		
Structure of animal and plant cells		
Cell specialisation (how cells are adapted)		
Basic principles of diffusion, osmosis, and active transport		
Organisation		
The human digestive system (main organs, enzymes)		
Heart and blood vessels		
Functions of red blood cells, white blood cells, platelets		
Plant tissues and transport (xylem, phloem)		
Health and non-communicable diseases (obesity, smoking, alcohol)		
Infection and Response		
Pathogens and how they cause disease		
Body's defence systems (skin, white blood cells)		
Vaccination and antibiotics		
Bioenergetics		
Photosynthesis (word equation, basic factors)		
Respiration (aerobic and anaerobic respiration)		
Homeostasis and Response		
The human nervous system (brain, spinal cord, reflexes)		
Hormones and basic functions (insulin, glucose control)		
Menstrual cycle and contraception		
Inheritance, Variation, and Evolution		
DNA, genes, and chromosomes		
Basics of inheritance (dominant and recessive traits)		
Natural selection and adaptations		
Ecology		
Food chains and ecosystems		
Adaptations of animals and plants		
Human impacts on the environment (pollution, deforestation)		
Chemistry		
Atomic Structure and the Periodic Table		
Basic structure of the atom (protons, neutrons, electrons)		
Elements, compounds, and mixtures		
Group 1, Group 7, Group 0 (basic properties)		
Bonding, Structure, and Properties of Matter		
Ionic and covalent bonding (simple explanation)		
Properties of simple molecular substances		
States of matter (solid, liquid, gas) and changing state		
Quantitative Chemistry		
Relative atomic mass and formula mass		
Conservation of mass (balancing equations)		
Chemical Changes		
Metals and acids (word equations)		
Reactivity series of metals		
Acids, alkalis, and neutralisation (pH scale)		
Electrolysis basics (simple processes)		
Energy Changes		
Exothermic and endothermic reactions (examples)		
The Rate and Extent of Chemical Change		

Factors affecting rate (temperature, concentration)		
Reversible reactions (very basic understanding)		
Organic Chemistry		
Basic idea of hydrocarbons (alkanes)		
Fractional distillation of crude oil		
Chemical Analysis		
Chromatography (simple explanation)		
Tests for common gases (oxygen, carbon dioxide)		
Chemistry of the Atmosphere		
Basic composition of the Earth's atmosphere		
Greenhouse gases and climate change		
Using Resources		
Finite and renewable resources		
Basic water treatment processes		
Physics		
Energy		
Energy stores and transfers (e.g., kinetic, gravitational)		
Renewable and non-renewable energy sources		
Efficiency basics (ways to reduce energy waste)		
Electricity		
Basic circuit symbols		
Current, voltage, resistance (simple calculations)		
Series and parallel circuits (how current and voltage behave)		
Particle Model of Matter		
States of matter and changes between them		
Density basics and simple calculations		
Atomic Structure		
Basic structure of the atom		
Radiation types (alpha, beta, gamma) and their properties		
Forces		
Types of forces (contact and non-contact)		
Speed, distance-time graphs, and simple velocity		
Newton’s laws of motion (basic ideas)		
Stopping distances and factors affecting braking distance		
Waves		
Properties of waves (frequency, wavelength)		
Differences between transverse and longitudinal waves		
Electromagnetic spectrum (simple uses)		
Magnetism and Electromagnetism		
Simple properties of magnets and magnetic fields		
Basic idea of electromagnets		