Edexcel GCSE Chemistry – Revision Checklist

Revision Checklist (Edexcel GCSE)

C1: Atomic Structure & Periodic Table

■	Subatomic particles; isotopes; mass and atomic numbers	Notes
■	Electron structure and shell filling	Notes
■	Development of atomic models (historical)	Notes
■	Periodic trends: group 1, 7, 0 properties and reactivity	Notes
■	Transition metals: properties and uses	Notes

C2: Bonding, Structure & Properties

■	Ionic bonding: dot-and-cross, lattice structures	Notes
■	Covalent bonding: simple molecules vs giant covalent	Notes
■	Metallic bonding and properties	Notes
■	Polymers and nanoparticles	Notes
■	Intermolecular forces and melting/boiling points	Notes

C3: Quantitative Chemistry

■	Relative formula mass (Mr), empirical formula	Notes
■	Moles and molar mass; Avogadro constant	Notes
■	Concentration and titration calculations	Notes
■	Atom economy and percentage yield	Notes
■	Gas volumes and stoichiometry	Notes

C4: Chemical Changes

■	Reactivity series and displacement	Notes
■	Acids, bases, neutralisation; salt preparation	Notes
■	Electrolysis: ions at electrodes, required practical	Notes
■	Redox reactions and half-equations	Notes
■	Strong vs weak acids	Notes

C5: Energy Changes

■	Exothermic vs endothermic reactions	Notes
■	Energy profiles and activation energy	Notes
■	Bond energy calculations	Notes
■	Required practical: temperature change investigations	Notes

C6: Rates of Reaction & Equilibrium

■	Factors affecting rate: concentration, temperature, surface area	Notes
■	Collision theory and catalysts	Notes
■	Required practicals: measuring rate	Notes
■	Reversible reactions and dynamic equilibrium	Notes
■	Le Châtelier’s principle (HT)	Notes

C7: Organic Chemistry

■	Crude oil and fractional distillation	Notes
■	Alkanes vs alkenes: reactions and tests	Notes
■	Alcohols and carboxylic acids	Notes
■	Polymers: addition vs condensation	Notes
■	Structure, functional groups, isomerism	Notes

C8: Chemical Analysis

■	Chromatography: Rf values and interpretation	Notes
■	Flame tests; metal hydroxide precipitates	Notes
■	Tests for halide and sulfate ions	Notes
■	Gas tests: hydrogen, oxygen, carbon dioxide, chlorine	Notes
■	Purity and formulations	Notes

C9: Earth’s Atmosphere

■	Evolution of Earth’s atmosphere	Notes
■	Greenhouse effect and climate change	Notes
■	Carbon footprint and mitigation	Notes
■	Pollutants: sources and impacts	Notes

C10: Using Resources

■	Finite vs renewable resources	Notes
■	Life cycle assessments (LCA)	Notes
■	Potable water production; water treatment	Notes
■	Haber process and NPK fertilisers	Notes
■	Materials: corrosion, alloys, polymers	Notes