## Education, Anywhere, Anytime

## IGESE CHEMISTRY CAMBRIDGE SPECIFICATION COVERAGE

CURRICULUM	TOPIC	SUB HEADING	KEYWORDS
CORE/SUPPLEMENT	Acids, bases and salts	Acids and bases	acid, alkali, base, indicators, metal oxides, non- metal oxides, amphoteric oxides, hydrogen ion, neutralisation, pH
CORE/SUPPLEMENT	Acids, bases and salts	Making salts	salt, hydroxide, carbonate, oxide, precipitate, purification techniques
CORE/SUPPLEMENT	Acids, bases and salts	Carboxylic acids	ethanoic acid, strong, weak, pH, ester
CORE	Atoms, elements and compounds	Atoms, elements and compounds	atoms, elements, compounds, molecules, mixtures, formulae
CORE	Atoms, elements and compounds	Atomic structure	atomic structure, energy levels, proton number, nucleon number, electronic structure, valency electrons
CORE	Atoms, elements and compounds	Isotopes	isotopes, radioactive isotopes
CORE/SUPPLEMENT	Structure and bonding	Ionic and covalent bonding	ions, ionic, covalent, molecule, giant structure
CORE/SUPPLEMENT	Structure and bonding	Metal structure and properties	properties of metals, alloys, delocalised electrons, conductor
CORE/SUPPLEMENT	Structure and bonding	Ionic compounds	ions, ionic, giant structure, lattice
CORE/SUPPLEMENT	Structure and bonding	Simple covalent molecules	covalent, molecule
CORE/SUPPLEMENT	Structure and bonding	Giant covalent structures	giant structure, covalent, diamond, graphite, fullerene
CORE/SUPPLEMENT	Calculations in chemistry	RAM	relative atomic mass, relative molecular mass
SUPPLEMENT	Calculations in chemistry	Calculating formulae	empirical formulae
SUPPLEMENT	Calculations in chemistry	Moles	moles, Avogadro constant
SUPPLEMENT	Calculations in chemistry	Gas volumes	molar gas volume
SUPPLEMENT	Calculations in chemistry	Yield in reactions	% yield
SUPPLEMENT	Calculations in chemistry	Titrations	end-point, pH curve, indicator, solution concentrations, calculations
CORE/SUPPLEMENT	Chemical reactions	Chemistry concepts	chemical reactions, balancing equations
CORE/SUPPLEMENT	Chemical reactions	Reversible reactions	reversible reaction, dynamic equilibrium, effects of changing conditions
SUPPLEMENT	Chemical reactions	Making ammonia (Haber process)	equilibrium, reversible
SUPPLEMENT	Chemical reactions	The contact process	contact process, sulfur, sulfuric acid,
CORE/SUPPLEMENT	Chemical reactions	Exothermic and endothermic reactions	endothermic, exothermic, bond breaking and forming
CORE/SUPPLEMENT	Earth and atmosphere	The Earth's atmosphere	Composition of the atmosphere, carbon cycle, deforestation, acid rain, global warming
CORE	Earth and atmosphere	Purifying water	filter, ion exchange, distillation, chlorination
CORE	Earth and atmosphere	Carbonates	thermal decomposition, lime, calcium carbonate, slaked lime, lime water

CURRICULUM	TOPIC	SUB HEADING	KEYWORDS
CORE/SUPPLEMENT	Electrolysis	Electrolysis	anode, cathode, electrolyte, electroplating
SUPPLEMENT	Electrolysis	Chemistry and uses of sodium chloride	electrolysis, aqueous sodium chloride, chlorine, sodium hydroxide
CORE/SUPPLEMENT	Obtaining and using metals	Extracting metals	reactivity series, reduction, carbon, electrolysis, oxidation, zinc extraction
CORE	Obtaining and using metals	Extracting iron	blast furnace, reduction, carbon
SUPPLEMENT	Obtaining and using metals	Extracting aluminium	electrolysis, aluminium oxide, cryolite
CORE/SUPPLEMENT	Obtaining and using metals	Properties and uses of metals	aluminium, copper, steel, conductors, corrosion, alloys, recycling
CORE/SUPPLEMENT	Obtaining and using metals	Reactions of metals	rusting, galvanising, sacrificial protection, reactivity series, displacement reactions, thermal decomposition
CORE/SUPPLEMENT	Crude oil and fuels	Crude oil	renewable, non-renewable, fossil fuels, hydrocarbons, alkanes, isomerism, substitution reactions
CORE	Crude oil and fuels	Fractional distillation of oil	fractions, viscosity, flammability, hydrocarbon
CORE	Crude oil and fuels	Burning fuels	combustion, particulates, fuel, methane, catalytic converter
SUPPLEMENT	Crude oil and fuels	Fuel cells	hydrogen fuel cell, electrochemical cell, half equations, redox
CORE/SUPPLEMENT	Crude oil and fuels	Cracking hydrocarbons	alkanes, alkenes, addition reaction, bromine water, double bond, saturated, unsaturated, homologous series, polymerisation, polythene
CORE	Crude oil and fuels	Alcohols	fuel, solvent, ethanol, combustion
SUPPLEMENT	Crude oil and fuels	Polymers	monomer, synthetic polymers, natural macromolecules, addition polymerisation, condensation polymerisation, biodegradable
CORE/SUPPLEMENT	Periodic table	Atomic structure and the periodic table	metals, non-metals, transition metals, groups, periods
CORE	Periodic table	Group 1 - alkali metals	properties
CORE	Periodic table	Group 7 - halogens	properties, displacement reactions
CORE	Periodic table	Transition elements	properties
CORE	Periodic table	Group 0 - Noble gases	unreactive, inert, uses
CORE/SUPPLEMENT	Qualitative analysis	Chromatography	purity, paper chromatography, chromatogram, Rf value, locating agents
CORE	Qualitative analysis	Tests for ions	flame test, precipitate
CORE/SUPPLEMENT	Rates of reaction	How fast?	rate of reaction, methods for investigating rate of reaction
CORE/SUPPLEMENT	Rates of reaction	Collision theory	activation energy, collision, kinetic theory, concentration, particle size, photochemical reactions
CORE/SUPPLEMENT	Rates of reaction	Catalysts	activation energy, enzymes