

TIER	TOPIC	SUB HEADING	KEYWORDS	CCEA UNIT 1	CCEA UNIT 2
F/H	Acids, bases and salts	Acids and bases	acid, alkali, base, hydrogen ion, neutralisation, pH	Y	
F/H	Acids, bases and salts	Making salts	salt, hydroxide, carbonate, oxide, precipitate	Y	Y
F/H	Acids, bases and salts	Carboxylic acids	strong, weak, pH	Y	Y
F/H	Alcohols and esters	Alcohols	fuel, solvent, ethanol, combustion		Y
F/H	Alcohols and esters	Esters	alcohol, perfume, flavouring		
F/H	Atoms, elements and compounds	Atoms, elements and compounds	atoms, elements, compounds, molecules	Y	
F/H	Atoms, elements and compounds	Atomic structure	atomic structure, energy levels, atomic number, mass number, electronic structure	Y	
F/H	Atoms, elements and compounds	Isotopes	isotopes, atom, mass number	Y	
F/H	Structure and bonding	Ionic and covalent bonding	ions, ionic, covalent, molecule, giant structure	Y	
F/H	Structure and bonding	Metal structure and properties	delocalised electrons, conductor, giant structure	Y	
F/H	Structure and bonding	Ionic compounds	ions, ionic, giant structure, lattice	Y	
F/H	Structure and bonding	Simple covalent molecules	covalent, molecule	Y	
F/H	Structure and bonding	Giant covalent structures	giant structure, covalent, diamond, graphite, fullerene	Y	
F/H	Building materials	Limestone	chalk, limestone, marble		Y
F/H	Building materials	Carbonates	thermal decomposition, lime water		Y
F/H	Building materials	Construction materials	limestone, cement, concrete		
F/H	Calculations in chemistry	RAM	relative atomic mass, RAM	Y	Y
H	Calculations in chemistry	Calculating formulae		Y	Y
H	Calculations in chemistry	Moles		Y	Y
H	Calculations in chemistry	Gas volumes			
H	Calculations in chemistry	Atom economy			
F/H	Calculations in chemistry	Yield in reactions	% yield	Y	
F/H	Chemical reactions	Reversible reactions	Reversible reaction, dynamic equilibrium		Y
F/H	Chemical reactions	Making ammonia (Haber process)	equilibrium, reversible		Y
F/H	Earth and atmosphere	The atmosphere	oxygen, carbon cycle, carbon dioxide, deforestation, air, photosynthesis, fossil fuel		Y
F/H	Earth and atmosphere	Effects of human activities	acid rain, global warming, dimming, deforestation, greenhouse gases, fossil fuels		Y
F/H	Electrolysis	Electrolysis	anode, cathode, electrolyte		Y
H	Electrolysis	Electrolysis calculations	half equation, coulomb		
F/H	Electrolysis	Chemistry and uses of sodium chloride	electrolysis, salt		
F/H	Energy in reactions	Exothermic and endothermic reactions	endothermic, exothermic, reversible	Y	Y

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F/H	Energy in reactions	Calculating energy changes in reactions	joule		
F/H	Energy in reactions	Energy diagrams	activation energy, energy level diagram		Y
H	Energy in reactions	Bond energy	bond making, bond breaking		Y
F/H	Food chemistry	Saturated and unsaturated oils	vegetable oil, saturated, unsaturated, hardening, margarine, hydrogenation		
F/H	Food chemistry	Emulsions	hydrophobic, hydrophilic, emulsifier		
F/H	Obtaining and using metals	Extracting metals	reactivity series, reduction, carbon, electrolysis, oxidation		Y
F/H	Obtaining and using metals	Extracting iron	reactivity series, reduction, carbon		Y
F/H	Obtaining and using metals	Extracting copper	electrolysis		
F/H	Obtaining and using metals	Extracting aluminium	reactivity, electrolysis		Y
F/H	Obtaining and using metals	Properties and uses of metals	conductors, corrosion, alloys, smart materials, recycling	Y	
F/H	Crude oil and fuels	Crude oil	renewable, non-renewable, fossil fuels, hydrocarbons, alkanes		Y
F/H	Crude oil and fuels	Fractional distillation of oil	fractions, viscosity, flammability, hydrocarbon		Y
F/H	Crude oil and fuels	Burning fuels	combustion, particulates, fuel, methane, catalytic converter		Y
F/H	Crude oil and fuels	Alternative fuels	biofuel, biodiesel, ethanol, renewable, fermentation		Y
F/H	Crude oil and fuels	Cracking hydrocarbons	alkanes, alkenes, addition reaction, bromine water, double bond, saturated, unsaturated, homologous series		Y
F/H	Crude oil and fuels	Polymers	monomer, double bond, bromine water, polymerisation, thermoset, thermo soft, biodegradable		Y
F/H	Periodic table	Development of the periodic table	Newlands, Mendeleev, Dobereiner	Y	
F/H	Periodic table	Atomic structure and the periodic table	metals, non-metals, transition metals, groups, periods	Y	
F/H	Periodic table	Group 1 - alkali metals	properties	Y	Y
F/H	Periodic table	Group 7 - halogens	properties, displacement reactions	Y	
F/H	Periodic table	Transition elements	properties		
F/H	Periodic table	Group 0 - Noble gases	properties	Y	
F/H	Qualitative analysis	Chromatography	chromatography, food additives, Rf value	Y	
F/H	Qualitative analysis	Tests for ions	flame test, precipitate	Y	Y
F/H	Quantitative analysis	Titrations	end-point, pH curve, indicator		Y
F/H	Rates of reaction	How fast?	rate		Y
F/H	Rates of reaction	Collision theory	activation energy, collision, kinetic theory, limiting factor		Y
F/H	Rates of reaction	Catalysts	activation energy		Y
F/H	Water	Hard and soft water	temporary hardness, permanent hardness, ion exchange, water softener		Y
F/H	Water	Soap and detergent	hydrophobic, hydrophilic		
F/H	Water	Purifying water	filter, ion exchange, distillation		