

X - no coverage	L - very limited coverage	P - partial coverage	✓ - covered
------------------------	----------------------------------	-----------------------------	--------------------

Subject	Coverage in common school examination systems					
	GCSE	IB Standard	SAT	A-level	IB Higher	AP
1. Chemical nature of substances - Inorganic substances						
a) The elements Nature of typical elements and the periodic table 1st to 3rd period and K, Ca	P	P	✓	✓	✓	✓
b) Compounds Compounds of typical elements Compounds of first row transition elements Oxides and Hydroxides	P	✓	✓	✓	✓	✓
c) Detection of ions Reactions of typical ions - colour reactions and precipitation reactions including Ag ⁺ , Cu ²⁺ , Zn ²⁺ , Ba ²⁺ , Ca ²⁺ , Sr ²⁺ , Mg ²⁺ , Na ⁺ , K ⁺ , Al ³⁺ , Pb ²⁺ , Fe ²⁺ , Fe ³⁺ , Cl ⁻ , SO ₄ ²⁻ , HCO ₃ ⁻ , I ⁻	P	✓	✓	✓	✓	✓
2. Chemical nature of substances - Organic substances						
a) Chemical features of organic compounds Aliphatic and aromatic compounds Determination of molecular formula Structures of organic compounds and their classification Structural formula and isomers	L	✓	P	✓	✓	✓
b) Compounds containing carbon, hydrogen, and oxygen Hydrocarbons, Alcohols, Ethers, Aldehydes, Ketones Carbonic acids, Phenols Fats/oils and detergents	X	P	L	✓	✓	P
3. Chemical nature of substances - Reactions of organic compounds						
Substitution, addition and elimination reactions	L	X	L	✓	✓	L
4. States of matter						
a) Three states of matter Melting and evaporation, melting point and boiling point The ideal gas law	P	✓	✓	✓	✓	✓
b) Mixtures Partial pressure of a gas Solutions and solubility Nature of dilute solutions and colligative properties	X	P	✓	✓	P	✓
5. Chemical reactions						
a) Qualitative treatment of reaction rates	P	✓	✓	✓	✓	✓
b) Thermodynamics - heat of reaction Thermochemical equations	P	✓	✓	✓	✓	✓
c) Chemical equilibrium Reversible reactions and Le Châtelier's Principle	P	✓	✓	✓	✓	✓
d) Acid base reactions, neutralizations Hydrogen ion concentration and pH	P	✓	✓	✓	✓	✓
e) Redox reactions Oxidation and reduction Electrolysis Ionization tendency Electrical cells (batteries)	X	✓	✓	✓	✓	✓

Subject	Coverage in common school examination systems					
	GCSE	IB Standard	SAT	A-level	IB Higher	AP
6. Structure of matter						
a) Atomic structure Models of atomic structure Shell structure of electrons Atomic structure and the periodic table	P	P	✓	✓	✓	✓
b) Chemical bonding Ionic bonding Covalent bonding The structure and nature of matter	P	✓	P	✓	✓	✓

✗ - no coverage	L - very limited coverage	P - partial coverage	✓ - covered
-----------------	---------------------------	----------------------	-------------