



What's included:

*definitions required by specification

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ATOMIC STRUCTURE

Atomic Number	
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Mass Number	
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Isotope	
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TOF Mass Spectrometer (Stages)	
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First Ionisation Energy*	
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Successive Ionisation Energies	
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Relative Atomic Mass*	
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Relative Isotopic Mass*	
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Relative Molecular Mass*	
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Relative Formula Mass*	
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FORMULAE & CALCULATIONS

Molecular Formula

Empirical Formula

A Mole*

Avogadro's Constant*

Molar Mass*

Molar Gas Volume*

% Atom Economy

% Yield

Ideal Gas Equation

BONDING

Covalent Bond	
Co-ordinate Bond	
Electrostatic Attractions	
Ionic Bonding	
Metallic Bonding	
V.S.E.P.R.	
Electronegativity	
Permanent Dipole Force	
Induced Dipole Forces	
Hydrogen Bonding	

ENTHALPY I

Enthalpy Change (ΔH)

Standard Conditions*

Standard States*

Standard Enthalpy of Reaction ($\Delta^{\ominus}H_r$)*

Standard Enthalpy of Formation ($\Delta^{\ominus}H_f$)*

Standard Enthalpy of Combustion ($\Delta^{\ominus}H_c$)*

Standard Enthalpy of Neutralisation ($\Delta^{\ominus}H_{\text{neut}}$)*

Heat Change (Q)

Hess' Law

Average Bond Enthalpy*

KINETICS

Collision Theory	
Catalyst	
Homogeneous Catalyst	
Heterogeneous Catalyst	
Activation Energy*	
Order of Reaction*	
Overall Order*	
Half-Life*	
Rate Constant*	
Rate Determining Step*	
Arrhenius Equation	

EQUILIBRIA

Dynamic Equilibrium	
Le Chatelier's Principle	
Homogeneous	
Equilibrium Constant - K_c	
Equilibrium Constant - K_p	
Mole Fraction	
Partial Pressure	

REDOX

Oxidation	
Reduction	
Oxidising Agent*	
Reducing Agent*	
Disproportionation*	
Standard Hydrogen Electrode	
Standard Electrode Potential (E^\ominus)	
E.M.F.	

ACIDS & BASES

Bronsted-Lowry Acid

Bronsted-Lowry Base

Conjugate Acid/Base Pairs

pH

Strong Acid / Base

Weak Acid / Base

Ionic product of Water (K_w)

Buffer

Acid Buffer

Basic Buffer

ENTHALPY II

Born-Haber Cycle

Enthalpy of Formation*

Ionisation Energy*

Enthalpy of Atomisation*

Bond Enthalpy*

Electron Affinity*

Lattice Enthalpy*

Enthalpy of Hydration*

Enthalpy of Solution*

Entropy

Gibbs Free Energy

TRANSITION METALS

Transition Metal

Ligand*

Complex Ion*

Coordinate Number*

Substitution Reaction

ORGANIC FORMULAE

General Formula*	
Homologous Series*	
Molecular Formula	
Empirical Formula	
Structural Formula*	
Skeletal Formula*	
Displayed Formula*	
Aliphatic	
Alicyclic	
Aromatic	

ISOMERISM

Structural Isomer*	
Chain Isomer	
Positional Isomer	
Functional Group Isomer	
Stereoisomer*	
E/Z Isomer*	
Cis-Trans isomer*	

ALKANES

Alkane

Fractional Distillation

Thermal Cracking

Catalytic Cracking

Free Radical*

Free Radical Substitution

HALOGENOALKANES

Halogenoalkane	
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Nucleophile*	
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Nucleophilic Substitution	
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Elimination Reaction	
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ALKENES

Alkene	
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C=C Double Bond	
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Electrophilic Addition	
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Addition Polymerisation	
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Test for an Alkene	
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ALCOHOLS

Alcohol

Hydration of Alkenes

Fermentation

Oxidation of Alcohols

Elimination Reaction

Test for an Alcohol

CARBONYLS & CARBOXYLIC ACIDS

Aldehyde	
Ketone	
Nucleophilic Addition	
Tests for Aldehydes / Ketones	
Carboxylic Acid	
Test for a Carboxylic Acid	
Ester	
Acid Anhydride	
Acyl Chloride	
Nucleophilic Addition-Elimination	

NITROGEN CONTAINING COMPOUNDS

Amine	
Nucleophilic Substitution	
Amide	
Nitrile	
Amino Acids	
Condensation Polymerisation	

AROMATIC COMPOUNDS

Benzene	
Pi-System	
Electrophilic Substitution	
Nitration	
Friedel-Crafts Acylation	
Halogenation	
Electron-donating Groups	
Electron-withdrawing Groups	

ORGANIC ANALYSIS

Mass Spectroscopy

Molecular Ion Peak

Fragmentation

IR Spectroscopy

$^1\text{H-NMR}$

$^{13}\text{C-NMR}$

Thin Layer Chromatography

Column Chromatography

Gas Chromatography

GC-MS
