CHEMISTRY

University –

Chemistry
Medicine
Engineering
Environmental
Biotech
Food science

Industry-
Apprenticeships

Yr13

Organic Synthesis
Instrumental & Chemical Analysis
Carbonyl Compounds

Module 6- Organic Chemistry & Analysis

Module 5 – Physical Chemistry & Transition Elements

Amines & Amino Acids
Polymers
Aromatic Chemistry

Electrons, bonding & structure
Atoms and Reactions
Chemical Equilibrium
Periodicity
Hydrocarbons
Alcohols
Organic Synthesis

Compounds, Formulae & Equations

Module 2 – Foundations in Chemistry

Module 3 – The Periodic Table & Energy

Module 4 – Core Organic Chemistry

Isomerism

Yr12

Acids
Amount of substance
Redox
Group 2
Quantitative Analysis
Group 7
Enthalpy Change
Functional Groups
Analytical Techniques

Haber process & Fertilisers
Life Cycle Assessment & Recycling
The Early Atmosphere
Greenhouse Gases
Gas Tests
Chromatography
Amino Acids & DNA
Polymers
Alcohols
Alkenes

Revision
C10 Sustainable Resources
C9 Atmosphere
C8 Chemical Analysis
C7 Hydrocarbons

Yr11

Metals, Corrosion & Alloys
Potable Water
Using Earth's Resources
Atmospheric Pollutants & their Sources
Identification of ions
Purity & Formulations
Hydrocarbons & Fractional Distillation

Dynamic equilibrium & Le Chatelier's Principle
Factors affecting Rate
Cells & Batteries
Extraction of Metals & Redox
Percentage Yield
Conservation of Mass
Titrations
Moles
Ions, Ionic Bonding, Structures & properties

C6 The rate and extent of chemical change
C4 Chemical Changes
C3 Quantitative Chemistry
C2 Bonding, Structure and properties of matter

Yr10

Rates of Reaction & Collision Theory
Reversible Reactions
Reactions of Acids &
Electroly
Relative Formula Mass
Atom Economy
Using Concentrations of solutions
Metallic,ionic and covalent Bonding,

Exothermic & Endothermic Reactions
Groups 1, 7, 0 & Transition
Developing scientific skills
Balancing equations

C5 Energy Changes
C1 Atomic structure and periodic table
Transition

Yr9

Bond Energies
Fuel Cells
Periodic Table
Development of the Model
Separating Techniques
Elements, Compounds & Mixtures
Structure of an atom

Redox reactions
Neutralisation
The Atmosphere
Fossil Fuels

Acids and Alkali's
Structure of the Earth and Rock Cycle

Yr8

Combustion
C-Cycle
Equations
Metals
Particle model
Separating Techniques

Chemiscal Reactions
Explaining Physical Change
Elements, Mixtures and Compounds

Yr7

Periodic Table
Chemical Symbols
Changing State
States of Matter
Solutions & Dissolving
PARTICLES
States of Matter
Nanoparticles