



Learning Journey:
KS5 Chemistry

Experimental skills

Presenting scientific rationales

Electron structure of
Transition Metal
atoms and ions

Olympiad
Term 3 Yr12
&13

Acids: K_a

Acids: K_w

Lattice
Enthalpy

Feasibility &
fuel cells

Qualitative Analysis

Equilibria: K_p

5.1 Equilibrium
and pH

5.2 Energy: Enthalpy,
entropy and redox

5.3 Transition metals: complexes,
redox and qualitative

FE/
HE

6.1 Carbonyl
compounds

6.2 Nitrogen compounds and synthesis

Amines & amides

Polymers

6.3 Analysis:
NMR &
Chromatography

Making & recording observations

Analysis & evaluation

Researching and
communicating skills &
hypotheses

Communicating theories &
explanations

Experimental skills

Reaction
mechanisms

3D diagrams for
optical isomers

Benzene

Phenol

6.1 Aromatic
compounds

4.2 Analysis:
Infra Red & Mass
Spectrometry

4.2 Alcohols and
haloalkanes

4.1 Alkanes
and Alkenes

5.1 Rates

3.2 Physical chemistry

3.1 Periodic table

Group 2

Group 7

Identifying & reducing
experimental error

Enthalpy changes

Rates

Equilibria: K_c

Qualitative Analysis

Developing and testing
hypotheses

Physical
property trends

Cambridge Challenge
Term 5 Yr12

Moles

Redox

Acids

Isotopes

Analysis & evaluation

Induct
ion

2.1 Atoms and reactions

3.1.1
Periodicity

Ionisation
energy

2.1 Atoms ions
compounds

2.2 Electrons, structure and
bonding

4.1 Basic organic
concepts

Isomerism

Atomic/
Electron
structure

Chemical formulae
and equations

Bonding

Development
of theories

Intermolecular Forces

3D molecular
shapes

Electronegativity

Naming
organic
molecules

Representing molecules using
different formulae types

Scientific vocabulary
and units

YEAR
13

YEAR
12