WHSB **CHEMISTRY** MIDDLE SCHOOL CURRICULUM MAP

Westcliff High School for Boys

LOWER SCHOOL PRIOR LEARNING INFORMS

YEAR 10

1

CONTENT
Chapter 3 – Structure and Bonding
Chapter 4 – Chemical Calculations

SKILLS
Application to Electrolysis, Organic and Resources
Understanding chemical interactions
Understanding materials
Rearranging equations, calculations applied to a Chemistry context
Practical skills -Acid-Base Titration

Chapter 3, 4 Test
Required Practical Tests
Online Multiple Choice

2

CONTENT
Chapter 5 – Chemical Changes
Chapter 6 – Electrolysis

SKILLS
Application to the Earths Resources
Practical skills – Making a Soluble Salt, Electrolysis
Understanding chemical reactions

Chapter 5 , 6 Test
Required Practical Tests
Online Multiple Choice

3

CONTENT
Chapter 7 – Energy Changes
Chapter 8 (I) – Rates
Chapter 8 (II) – Equilibrium

SKILLS
Practical skills – Measuring Rates of Reaction and Energy Transfer
Calculations applied to energy transfer

Chapter 7 Test
Required Practical Tests
Online Multiple Choice
End of Year Examination

YEAR 11

1

CONTENT
Chapter 8 (II) – Equilibrium
Chapter 9 – Crude Oil and Fuels
Chapter 10 – Organic Reactions
Chapter 11 – Polymers

SKILLS
Practical skills – Cracking
Application of abstract concepts
Acquisition of knowledge

Chapter 8, 9, 10 & 11 Test
Required Practical Tests
Online Multiple Choice
Trial Examination

2

CONTENT
Chapter 12 – Chemical Analysis
Chapter 13 – The Earth's Atmosphere
Chapter 14 – The Earth's Resources
Chapter 15 – Using Our Resources
Revision

SKILLS
Practical Skills – Chromatography, Chemical analysis, Water Purification
Materials

Chapter 12 , 13 & 14. 15 Test
Required Practical Tests
Online Multiple Choice

3

CONTENT
Revision

SKILLS
Past paper practice (including timed conditions) and examination technique
Paper 1: Chapters 1 – 7
Paper 2: Chapters 8 - 15

GCSE Summer Examination

GCSE EXAMINATION BOARD: AQA

LINKS TO A LEVEL STUDY:

GCSE	A-LEVEL
Ch 1,3	Topic 1 – Atomic Structure
Ch 3	Topic 3 – Bonding & Structure
Ch 4,5,6	Topic 3 – Redox I
Ch 2, 12	Topic 4 – Inorganic Chemistry
Ch 4	Topic 5 – Formulae, Equations & the Mole
Ch 3,9,10,11	Topic 6 – Organic Chemistry I
Ch 12	Topic 7 – Modern Analytical Techniques I
Ch 7	Topic 8 – Energetics I
Ch 8	Topic 9 – Kinetics I
Ch 8,15	Topic 10 – Equilibrium I
Ch 8, 15	Topic 11 – Equilibrium II
Ch 4,5	Topic 12 – Acid Base Equilibria
Ch 7	Topic 13 – Energetics II
Ch 4,5,6	Topic 14 – Redox II
Ch 3	Topic 15 – Transition Metals
Ch 8	Topic 16 – Kinetics II
Ch 3,9,10,11	Topic 17 – Organic Chemistry II
Ch 3,9,10,11	Topic 18 – Organic Chemistry III
Ch 12	Topic 19 – Modern Analytical Techniques II

ENRICHMENT OPPORTUNITIES:

Chemistry Mastermind support
Chemistry at Work

WHSB **CHEMISTRY** SIXTH FORM CURRICULUM MAP

Westcliff High School for Boys

MIDDLE SCHOOL PRIOR LEARNING INFORMS

LOWER SIXTH

1

CONTENT
Topic 1 – Atomic Structure
Topic 2 – Bonding & Structure
Topic 5 – Formulae, Equations & the Mole
Topic 6 – Organic Chemistry I

SKILLS
Chemical formulae and equations
Calculating amount of substance
Application of abstract models to explain chemical phenomenon
Practical skills – Titrimetric analysis

Baseline, Topic 1,2,5,6 Tests
Core Practical Tests
Online Multiple Choice
Independent work

2

CONTENT
Topic 3 – Redox I
Topic 4 – Inorganic Chemistry
Topic 8 – Energetics
Topic 6 – Organic Chemistry I
Topic 7 – Modern Analytical Techniques

SKILLS
Chemical formulae and equations
Chemical structure and mechanistic approaches
Calculating energy transfers
Interpreting analytical data
Practical skills - hydrolysis of halogenoalkanes, distillation and reflux

Topic 3,4,8,6,7 Tests
Core Practical Tests
Online Multiple Choice
Independent work

3

CONTENT
End of Year Examination
Topic 10 – Equilibrium I
Topic 11 – Equilibrium II
Topic 12 – Acid Base Equilibria

SKILLS
Application of Maths applied to a chemical context
Practical skills – Calculating equilibria constants, calculating Ka, Kinetics, Calculating activation energy

End of Year Examination
Topic 10 & 11 Test
Core Practical Tests
Online Multiple Choice
Independent work

UPPER SIXTH

1

CONTENT
Topic 12 – Acid Base Equilibria
Topic 13 – Energetics II
Topic 14 – Redox II
Topic 17 – Organic Chemistry II
Topic 18 – Organic Chemistry

SKILLS
Application of Maths applied to a chemical context
Calculating energy transfers and entropy
Understanding mechanistic approaches
Recall of knowledge

Topic 12, 13, 14, 17, 18 Tests
Core Practical Tests
Online Multiple Choice
Independent work

2

CONTENT
Trial Examination
Topic 14 – Redox II
Topic 15 – Transition Metals
Topic 18 – Organic Chemistry
Topic 19 – Modern Analytical Techniques II

SKILLS
Practical skills – Investigating the % of iron in a tablet, synthesis of aspirin, synthesis of a transition metal complex

Topic 12, 13, 14, 17, 18, 19 Tests
Core Practical Tests
Online Multiple Choice
Independent work

3

CONTENT
Revision of all content covered

SKILLS
Past paper practice (including timed conditions) and examination technique
Paper 1: (1h 45)
Topics 1, 2, 3, 4, 5, 8, 10, 11, 12, 13, 14, 15
Paper 2: (1h 45)
Topics 2, 3, 5, 6, 7, 9, 16, 17, 18, 19
Paper 3: (2h 30)
All Topics

A- Level Examinations

A LEVEL EXAMINATION BOARD: EDEXCEL

PREPARATION FOR UNIVERSITY AND CAREERS:

Accountant
Analytical Chemist
Banking
Chemical Engineer
Forensic Scientist
Geochemist
Hazardous Waste Chemist
Materials Scientist
Medicine
Nanotechnology
Pharmacologist
Science journalism
Teacher
Toxicologist
Water Chemist
OxBridge preparations

ENRICHMENT OPPORTUNITIES:

Support and Extension sessions
Cambridge Challenge (C3L6)
RSC Chemistry Olympiad
University trips/ lectures