STEP UP TO 6TH FORM

KIMBERLEY SCHOOL TRANSITION INFORMATION

Chemistry

A Level OCR

COURSE DETAILS

UNIT 1

Development of Practical Skills

This module covers the practical skills that students will develop throughout the course. The practical skills in this module can be assessed within written examinations. Students will demonstrate their practical competence in 12 practical assessments.

UNIT 2

Foundations in Chemistry

- Atoms, compounds, molecules and equations
- Amount of substance (mole calculations)
- Acid-base and redox reactions
- Electrons, bonding and structure.

UNIT 3

Periodic Table & Energy

- The periodic table and periodicity
- Group 2 and the halogens
- Qualitative analysis
- Enthalpy changes
- Reaction rates and equilibrium (qualitative)

UNIT 4

Core Organic Chemistry & Analysis

- Basic concepts
- Hydrocarbons
- Alcohols and haloalkanes
- Organic synthesis
- Analytical techniques (infra-red spectroscopy and mass spectrometry).

UNIT 5

Physical Chemistry and Transition Elements

- Reaction rates and equilibrium (quantitative)
- pH and buffers
- Enthalpy, entropy and free energy
- Redox and electrode potentials
- Transition elements.

Organic Chemistry and Analysis

- Aromatic compounds
- Carbonyl compounds
- Carboxylic acids and ester
- Nitrogen compounds
- Polymers
- Organic synthesis
- Chromatography and spectroscopy (NMR)

EXAMS

2 x 2hr15min (37%)
1 x 1hr30min (26%)

LINK TO THE SPECIFICATION

See a detailed document of what we will cover in this course:
www.ocr.org.uk/Images/171720-specification-accredited-a-level-gce-chemistry-a-h432.pdf

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Work you can do to prepare for A Level study

Wider Reading

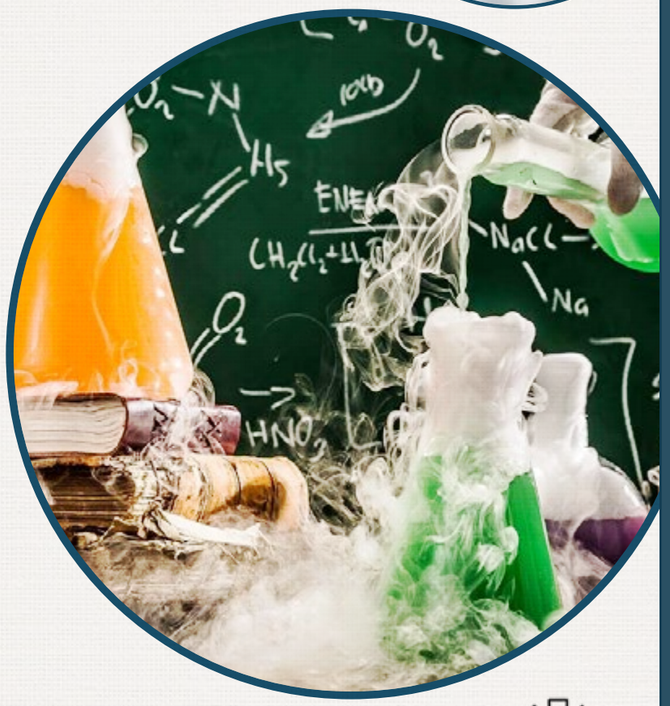
We recommend you read through this transition book and try all the activities before starting A level Chemistry CGP Head Start to Chemistry.

YOUTUBE

Veritasium
ASAPscience
SixtySymbols
TedEd
The Royal Institution
Reel Truth Science
Steve Mould
Smarter Everyday

BOOKS

The Disappearing Spoon – Sam Kean
Bad Science – Ben Goldacre
Periodic Tales – Hugh Aldersley-Williams



FILM & TV

Chemistry - A Volatile History BBC Tv, Professor Jim Al-Kalili

PODCASTS

Ologies with Alie Ward
Science Vs
The Curious Cases of Rutherford and Fry
New Scientist Weekly
The Life Scientific
This Podcast Will Kill You
The Infinite Monkey Cage

USEFUL RESOURCE LINKS

MAChemGuy https://docs.google.com/document/d/1MFgkCts2xGSOx5f07v0K_ejKMpli04nNNsCq3jDDVwE/edit
Primrose Kitten A level Chemistry https://primrosekitten.org/a-level-chemistry/
Chemguide https://www.chemguide.co.uk/
Crash Course Chemistry www.youtube.com/playlist?list=PL8dPuuaLjXtPHzzYuWy6fYEaX9mQQ8oGr