# **Key Stage 5: Chemistry Year 1**

# **Subject Specifications**

Exam board: AQA: 7404

Level: Level 3

http://www.aqa.org.uk/subjects/science/as-and-a-level/chemistry-7404-7405

## **Course Description**

#### What will be studied?

#### **Physical Chemistry**

Atomic structure, Amount of substance, Bonding, Energetics, Chemical equilibria, Le Chatelier's principle and  $K_c$ , and Oxidation, reduction and redox equations

#### **Inorganic Chemistry**

Periodicity, Group 2, the alkaline earth metals, Group 7(17), The Halogens

#### **Organic Chemistry**

Introduction of organic chemistry, Alkanes, Halogenoalkanes, Alkenes, Alcohols, and Organic analysis

#### **Entry requirements**

## What are the entry requirements?

The minimum entry requirement will be six GCSE qualifications at grade 5 - 9 including English Language and Mathematics. In addition to this students will be expected to achieve minimum of a grade 6 in all three separate sciences or grade 6, 6 in combined sciences.

Click here to access the Chemistry Enrolment Task

| Assessment              |   |
|-------------------------|---|
| How will I be assessed? |   |
| Paper 1: 7404/1 [50%]   | Assessed by a 1 ½ hour internal examination in the Summer |
| Paper 2: 7404/2 [50%]   | Term  |
|                         | Assessed by a 1 ½ hour internal examination in the Summer |
|                         | Term  |

## **Careers & Progression**

#### **Career ideas and Progression route**

Students will progress into Year 2 during which you have the opportunity to gain an A Level qualification in this subject.

# How can I help my child?

# **Guidance and advice**

## **Further reading:**

- Kerboodle.com all students have login details for a free version of the textbook used in lessons. This also includes videos, support and extension activities.
- Glossary of Technical Terminology
- Recommended Text Books
- Past Exam Papers
- Chemistry Related Articles
- <u>Chemistry VIP Zone</u>

# **Key Stage 5: Chemistry Year 2**

# **Subject Specifications**

Exam board: AQA: 7405

Level: Level 3

http://www.aqa.org.uk/subjects/science/as-and-a-level/chemistry-7404-7405

## **Course Description**

#### What will be studied?

**Physical Chemistry:** As well as revision of Year 1 topics, you will study: Thermodynamics, Rate equations, Equilibrium constant Kp for homogeneous systems, Electrode potentials and electrochemical cells, and Acids and bases

**Inorganic Chemistry:** As well as revision of Year 1 topics, you will study: Properties of Period 3 elements and their oxides, Transition metals, and Reactions of ions in aqueous solution

**Organic Chemistry:** As well as revision of Year 1 topics, you will study: Optical isomerism, Aldehydes and ketones, Carboxylic acids and derivatives, Aromatic chemistry, Amines, Polymers, Amino acids, proteins and DNA, Organic synthesis, Nuclear magnetic resonance spectroscopy, and Chromatography

#### **Entry requirements**

#### What are the entry requirements?

Click here for the Chemistry Transition Task

The minimum recommended entry requirement is a D grade at AS Level [Year 1]

| Assessment              |   |  |
|-------------------------|---|--|
| How will I be assessed? |   |  |
| Paper 1: 7405/1 [35%]   | Assessed by a 2 hour examination in the Summer Term |  |
| Paper 2: 7405/2 [35%]   | Assessed by a 2 hour examination in the Summer Term |  |
| Paper 3: 7405/3 [30%]   | Assessed by a 2 hour examination in the Summer Term |  |

## **Careers & Progression**

#### **Career ideas and Progression route**

Level 3 qualifications in Chemistry will enable students to enter degree & degree level courses related to Engineering, Medicine and Research

Click here for information on Careers in Chemistry

# How can I help my child?

# **Guidance and advice**

# Further reading:

- Kerboodle.com all students have login details for a free version of the textbook used in lessons. This also includes videos, support and extension activities.
- Glossary of Technical Terminology
- Recommended Text Books
- Past Exam Papers
- <u>Chemistry Related Articles</u>
- <u>Chemistry VIP Zone</u>