

# Applied Science Level 3 Extended Certificate

## Exam Board: AQA

As a new addition to the prospectus we are proud to offer an AQA Applied General Extended Certificate at Level 3 in Applied Science. As an extended certificate, it is worth the same as a single A-Level covering scientific theory, building on fundamental ideas encountered in GCSE science, incorporating practical and experimental techniques, as well as the roles and perception of scientists to the public.

Students wishing to participate in this course will need 5 GCSEs with a minimum of a C grade in both Maths and English, due to the essential abilities needed for confidently using calculations in analysis techniques and examinations, and the high level of communication required.

The AQA Level 3 Extended Certificate in Applied Science comprises 6 units to be studied over 2 years that consists of 5 mandatory units, 3 of which are externally examined, and 1 optional unit.

## Summary of course content for Year 12

| Unit Title                              | Description  | Examinations / Portfolio                                   | % of total qualification |
|---|--|--|--------------------------|
| Unit 1: Key concepts in Science         | Students develop an understanding of the key concepts in Biology, Chemistry and Physics, building on their knowledge and understanding of their Science GCSEs. The delivery will be mostly theoretical however learning will also be supported by practical work to reinforce vocational skills. Topics covered range from learning the structure and function of the heart, working with moles and exploring Newton's Laws of Motion. | Externally assessed written exam                           | 16.6%                    |
| Unit 2: Applied Experimental Techniques | The majority of this unit requires students to keep a laboratory notebook to record a number of practical investigations covering Biological, Chemical and Physical techniques. Students will also cover the health and safety requirements for such work, as well as using research to investigate the ways in which scientific techniques are applied in industry.   | Internally assessed portfolio                              | 16.6%                    |
| Unit 3: Science in the Modern World     | Students will learn to analyse and evaluate scientific information, develop critical thinking skills, and understand the use of media to communicate scientific ideas and theories. Students will gain an insight of how science is used in organisations and the roles and responsibilities of scientists in industry.  | Externally assessed written exam with pre-release material | 16.6%                    |

## Summary of course content for Year 13

| Unit Title                    | Description  | Examinations / Portfolio         | % of total qualification |
|-------------------------------|--|----------------------------------|--------------------------|
| Unit 4: The Human Body        | Students develop an understanding of key concepts relating to the human body, including details of the structure and function of various body systems building on knowledge gained from GCSEs. Students will also develop the ability to apply these concepts to new situations in vocational contexts, such as the work of sports scientists or dieticians.                               | Externally assessed written exam | 16.6%                    |
| Unit 5: Investigating Science | In this unit, students have the opportunity to carry out their own scientific investigation using standard procedures. Students will learn how to plan, research, record and display data, conclude and evaluate in a scientific report.   | Internally assessed portfolio    | 16.6%                    |
| Unit 6: Microbiology          | Students will develop their knowledge and understanding of key microbiological concepts and techniques used when working in biotechnological industries. Students will learn to identify various types of microorganisms as well as use the specific skills to safely cultivate microorganisms. Research will also be undertaken to understand the importance of microbiology in industry. | Internally assessed portfolio    | 16.6%                    |

## Frequently asked questions

### **How does the AQA Level 3 Extended Certificate in Applied Science work in practice?**

The course is split into 6 equally weighted units studied over a 2 year period. 3 written exams will take place in the January and June exam periods over the 2 years which comprises 50% of the qualification. 3 units are coursework which are internally assessed, making up the final 50%.

### **What GCSE grades do I need for Extended Certificate in Applied Science?**

It is important that you have achieved a grade C or above in GCSE Science double award; however, you must have at least 5 GCSEs with a grade C and above in Maths and English.

### **What skills do I need to do well?**

There are a number of qualities that are of particular importance in doing well at AQA Applied Science, these are:

- The ability to set and meet coursework deadlines with a high level of organisation
- The ability to write coherently, logically and present work well
- The ability to enthusiastically research topics independently of arranged lessons
- The ability to approach practical work seriously with health and safety in mind

### **Is there lots of practical work?**

Part of the course requires the learning of practical skills used in laboratories that could be suitable to be developed to a level of a technician working in the science industry. Practical skills are assessed and require a high level of focus, determination and good motor skills.

***Samia Nicolas, Teacher of Science***