

Student Guide

Welcome to Edexcel's GCSEs in science

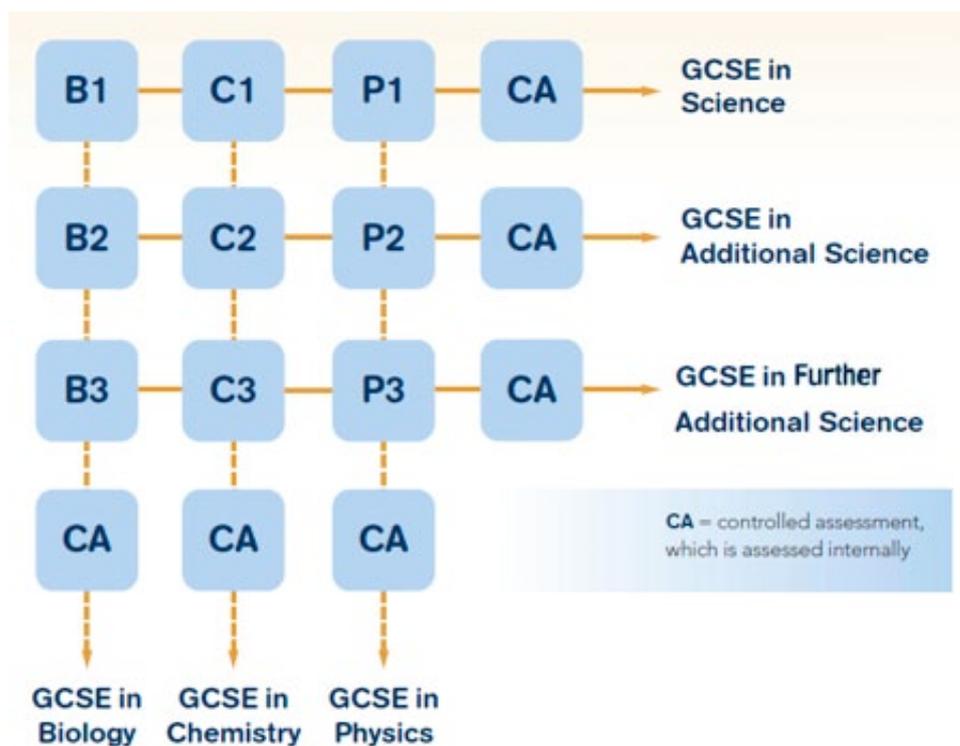
Edexcel's GCSE science qualifications are going to be taught in your science lessons over the next two or three years, so we're going to spend a few pages introducing you to them. We'll tell you a little about what you might expect over the next couple of years, what subjects you'll be studying and what exams you'll be taking.

Up to this stage, you may have had science lessons which were simply called "Science", so this may be the first time that you encounter three of the different subjects that make up science. These are biology (which looks at how plants, animals and other organisms live and how they benefit us), chemistry (the study of substances, the way in which they react and how we use them to make new materials) and physics (which looks at how forces, electricity, waves and radiation affect our Universe and how we use these to invent technology to our benefit).

Different schools teach science at GCSE in different ways – you may have the same teacher throughout, or you might have different teachers for biology, chemistry and physics. However, in almost all cases, you'll do equal amounts of the three sciences and you'll take exams in all three subjects.

What GCSEs can I study for?

It's probably best to look at a diagram of how the sciences are organised at GCSE so that you know what you'll be studying and which exams you'll have to take.



Most of you will start off by taking GCSE in Science. This is shown in the top row of the diagram and it involves taking three exams – B1 (biology), C1 (chemistry) and P1 (physics). In addition, you'll carry out a controlled assessment, which is an internally assessed piece of work that is related to a practical. This is carried out during class time.

Having done GCSE in Science, the most likely next stage is to move on to GCSE in Additional Science – the second row of the diagram. The principle is the same as for GCSE in Science – you'll learn equal amounts of biology, chemistry and physics and take an exam in each (B2, C2 and P2) and a controlled assessment. You may even go on to complete another GCSE in Further Additional Science in order to achieve three GCSEs in science.

What GCSEs can I study for?

You can achieve three GCSEs in science through study of Science, Additional Science and Further Additional Science. The advantage of this route is that you may be able to delay your choice of whether you will go on to do three GCSEs in Science, perhaps even until after you have taken your first GCSE in Science at the end of year 10. However, you can also follow the route represented by the dotted vertical lines in the diagram. If you're taking this path, you'll end up with three science GCSEs – GCSE in Biology, GCSE in Chemistry and GCSE in Physics. To get each GCSE, you'll also have to take three exams and a piece of controlled assessment. To take Biology as an example, you'll take B1, B2, B3 and the controlled assessment. The advantage of this route is that grades will reflect your performance in individual subjects rather than across all sciences.

What are the exams and controlled assessments like?

As you've seen from the previous page, each GCSE works exactly the same: to get any of the GCSEs making up the science subjects, you'll need to take three exams and do a piece of controlled assessment. All the exam papers follow a common format, so we'll start by looking at this.

The exam papers each last one hour and they are marked out of 60. This means that it should be easy to plan your time on the question paper – you should be aiming to do one mark's worth of question each minute of the exam. Of course, if you're able to go a little faster than this, you'll find there's a few minutes left at the end for you to check what you've written.

We've tried to make the exam papers all look the same in terms of structure and the style of questions we'll ask. So, it doesn't matter if you're taking Biology Paper 1, Chemistry Paper 2 or Physics Paper 3, the question papers look similar to each other and, more importantly, they'll look similar to any papers you may have used as practice papers during the course of your revision.

So, each question paper has six questions; and the question parts get a little more difficult as you work through each one, and as you move from Q1 through to Q6. The first couple of questions in the paper will be about eight marks long, the next two will be about 10 marks long and the last two will be about 12 marks long. Each question will start off with something to get you thinking – a photo or diagram, or perhaps a couple of sentences, just to ensure that you're remembering the right topic.

You can take the exams at different tiers; Foundation (aimed at grades C to G) and Higher (aimed at grades A* to D). The papers you sit will most likely be decided by your teacher. You can take any combination of Foundation and Higher papers throughout the course of your science GCSEs.

The controlled assessment tasks are set by Edexcel and marked by your teacher. We will then moderate these marks here at Edexcel. Most of the work for your controlled assessment will be completed in class, and they will take around four lessons to complete. They will centre around a piece of practical work; you will be required to plan an investigation, carry out a practical, and analyse your own, and others', data.

When do I take the exams and controlled assessments?

Every qualification you take must be taken in a linear way. This means that you have to do all the exams in June at the end of your course. You can complete the controlled assessment at any time during the course, and your teacher will submit it at the end of the course. You don't have to do all your GCSEs in science at the same time. For example, if you are taking GCSE Science and Additional Science, your school may decide to enter you for GCSE Science at the end of Y10, and Additional Science at the end of Y11.

What can I do after GCSE?

You may choose to go on either to GCE AS/A2 Level if you've studied GCSE in Additional Science or separate sciences, or to a BTEC Level 3 course in Applied Science.

After that, who knows? You may go on to college or to university to study science, or a science-related subject such as Maths, Medicine, Psychology or Veterinary Science. This may be as a degree, or other courses, such as the Higher National Diploma. You may go into a science-based job straight from school, working in engineering or biomedicine or many other fields where you'll get to use some of the knowledge from your science GCSEs in real situations.

But, even if you stop studying science after Year 11, you'll have useful qualifications in science. Employers often look for people with good results in science, because studying and doing well in science shows that you have the sort of way of approaching and solving problems that employers find useful.

What help is available to help me do well?

There is plenty of support for you when studying with Edexcel. We have produced student textbooks written by experienced authors with help from examiners to make sure that you know exactly what you need to learn for Edexcel GCSE Science, Additional Science, Further Additional Science and separate sciences. They also contain hints and tips for help when revising and preparing for exams, with exam-style questions and sample student answers.

You will also find ActiveLearn a very useful tool for revision and exam preparation. Working through exam-style questions, this online revision and exam preparation service gives you plenty of help at different grade ranges to build your learning and improve your answers.

There are also textbooks and revision guides available from other companies, some of which will be endorsed by Edexcel.

Information about all these support materials and guides can be found on our website at www.edexcel.com/science2011.

The Edexcel website (www.edexcel.com) has links to Edexcel's most useful support networks. You can also find additional help with revision, exams and re-sits at our online exam support centres:

- www.examzone.co.uk
- www.resultsplusdirect.co.uk

We look forward to supporting you through your course and helping you fulfill your potential.