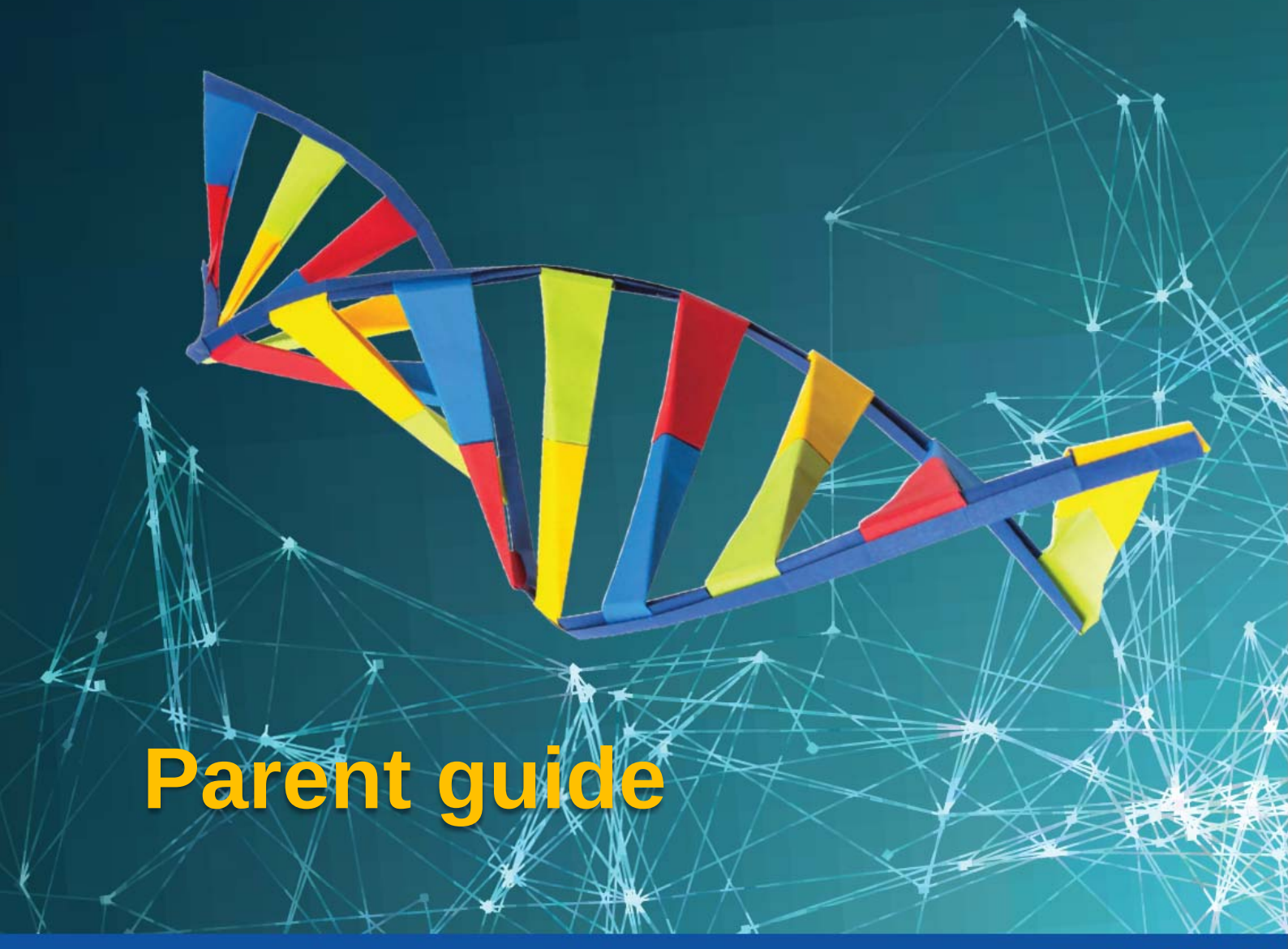
edexcel

GCSE (9–1) Sciences 2016

Supporting success in science

Discover our new qualifications



Parent guide

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Welcome to Edexcel's GCSEs in science

You may be aware that the UK's science GCSEs have recently undergone redevelopment. As one of the country's main awarding organisations, we are offering schools a suite of qualifications that has been written by highly experienced teachers, with the input of professionals across science education.

This short guide is designed give you some information about the new science GCSEs. We give you an outline of how the new GCSEs are structured, what sorts of exams your child will face, and what they can then do with the GCSE science qualifications that they gain.

What is science at GCSE?

Science at GCSE level aims to develop students' knowledge and understanding of scientific theories, but also their ability to apply that knowledge, analyse and evaluate information, in practical and everyday scenarios. It gives students good life skills, regardless of the path they follow.

Changes affecting the new GCSEs

GCSEs in science have undergone marked change for those students leaving school in June 2018 or later. Those of you with older children who have already completed GCSEs will notice some differences in the science qualifications.

General changes to the GCSEs

- **When students take their exams**

  The qualifications will now be completely linear. This means that all examinations will be taken in the same exam series at the very end of the course of study (usually end of Y11).

- **Changes to the grading scale**

  The existing A*–G scale will be replaced with a 9–1 scale, with 9 being the highest grade awarded and 1 being the lowest grade awarded. This numerical grade is what you will see when students are given their results on results day.

  Note: a 'good pass' is currently a C, the new 'good pass' will be a grade 5.

- **Removal of coursework**

  There will no longer be a coursework unit in the GCSEs. Practical work is still a very important part of the science GCSEs, not only to consolidate learning, but also to develop skills in planning, analysing and evaluating. These practical skills will be assessed as part of the written examinations at the end of the course.

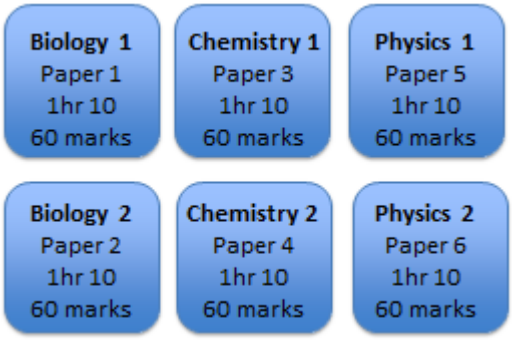
Routes through science

There will be a choice of two main routes to science GCSEs, either a two-GCSE Combined Science, or a three-GCSE separate science route (consisting of GCSE Biology, GCSE Chemistry and GCSE Physics). The majority of students will take one of these routes. For those of you familiar with the previous qualifications, there is no longer a one-GCSE sized *Core science* option.

Combined Science

The first option is to study Combined Science. This is a two-GCSE sized (double award) qualification covering the three science disciplines of Biology, Chemistry and Physics. Students are awarded a grade based on their overall performance across these three disciplines.

Combined science students will sit six exams at the end of the course as shown here.



There will be two Biology exams, two Chemistry exams and two Physics exams. All exams are 1 hour 10 minutes, and each exam will cover half of the content for that discipline.

There will be Foundation tier and Higher tier papers, and students must sit all six exams at the same tier. Foundation tier is for students who are aiming for grades 1–5, and Higher tier is for students who are aiming for grades 4–9. Your child's school will most likely give guidance on the appropriate tier of entry.

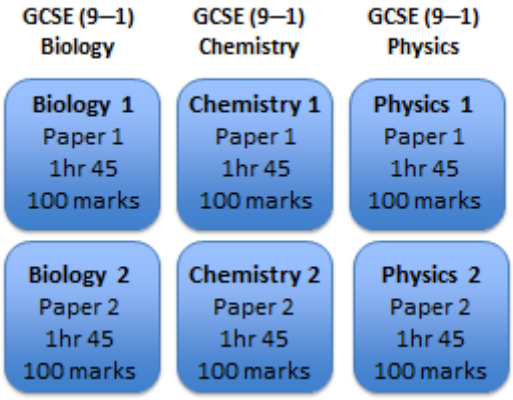
As it's a double award qualification, students will receive two grades. These grades could be the same number, e.g. 6, 6 or 7, 7. However, some students may receive a grade with adjacent numbers, e.g. 6, 7. This will signify a student who is at an intermediate point between the standard required for a 6, 6 grade, and the standard required for a 7, 7 grade.

Separate sciences

The second option is to study three separate sciences, which gives three GCSEs: GCSE Biology, GCSE Chemistry and GCSE Physics. Students are awarded individual grades for each discipline.

Separate science students study all of the content from Biology, Chemistry and Physics disciplines of Combined Science, but with added extra material in each discipline.

Separate science students also sit six exams at the end of the course.



These six exams, at 1hr 45 minutes, are slightly longer than the Combined Science exams. Each exam will cover half of the content for that discipline.

There will be Foundation tier and Higher tier papers. Foundation tier is for students who are aiming for grades 1–5, and Higher tier is for students who are aiming for grades 4–9. Your child's school will most likely give guidance on the appropriate tier of entry. In the separate science pathway, students can choose different tiers for different disciplines. So, for example, a student may choose to sit Physics and Chemistry at Higher tier and Biology at Foundation tier.

Students will receive a grade between 1 and 9 for each of Biology, Chemistry and Physics GCSEs.

What will the assessments look like?

Our assessments will all follow the same format, regardless of subject or tier.

We will have a mix of question types which will include a mix of multiple choice questions, short answers, and longer extended answers (worth up to 6 marks).

Which route should my child choose?

In some schools, the school will select students for three separate sciences based on attainment in the subject at end of KS3 (usually sometime in year 9). In other schools the student is given choice over which route to take. If your child's school follows the latter approach, you should discuss what will be the best route with your child and the school. You should consider how much they enjoy science, how interested they are in the subject, and their plans for their future. Remember that if they do three separate sciences they do one fewer option subject.

Y10 exam

If your child leaves school in summer 2018, your school may opt to have your child sit exams in May of year 10 in each of the three sciences. These will be set, and marked, by us. This examination will **not** count towards your child's eventual grade, but it will give your child experience of a formal examination. Your child's results will be sent to the school not in grades but in terms of relative performance compared to the rest of the year group. This will be an invaluable opportunity for your school to assess the progress of its students over the course of the first year of study of this new qualification.

What can my child do after GCSE?

At the end of Year 11, many students will finish their studies in science. These students will have gained valuable GCSEs in science, which are well respected by employers, who view good grades for GCSEs in science as an indication that a person has mastered a difficult discipline. Of course, for some careers, having GCSEs in science subjects is either very useful or, in some cases, compulsory. One such career is being a primary school teacher, where a GCSE pass in a science subject is a requirement.

A good proportion of students enjoy their sciences at GCSE so much that they go on to study science at AS and A Level or BTEC Level 3. This may lead them into a career straight from school, where their science qualifications are again very impressive; or it may lead them into a variety of university courses, either science or non-science based.

What support materials are there for my child?

Pearson provides support for students through the online ActiveLearn Digital Service (available as a whole-school subscription) and the textbooks that accompany the course*.

Pearson's resources are designed to be simple, inclusive and inspiring and to support and motivate students in studying for Edexcel GCSE (9-1) Science.

- The **Student Book** will help students understand the key learning for each topic, and to apply, analyse and evaluate their learning in new contexts. This will support them to develop the full range of skills that will be assessed in the exam. There are also exam-style questions to help your child to improve their responses.
- The online resource **ActiveLearn Digital Service** provides students with an online homework portal, which provides a unique, supportive environment to encourage student learning. Hints, learning aids and targeted feedback gives students support when they need it.

Other science resources are available for the Edexcel course, some of which we have endorsed (they are marked prominently with a badge if so). Additionally, there will also be a variety of revision guides on the market. Do check that any guide you buy is suitable for the Edexcel GCSE.

*Your school doesn't have to purchase any resources to deliver our qualifications.