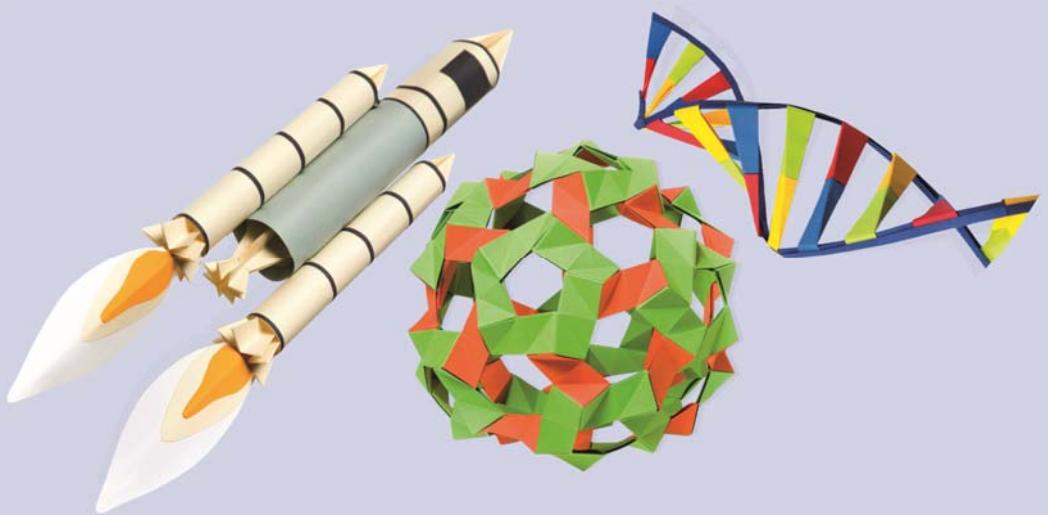


Entry Level Certificate in Science

Getting Started

Guide



Pearson Edexcel Entry Level Certificate in Science (NSC0)

Getting Started: Entry Level Certificate

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1. Introduction

This Getting Started guide provides an overview of the new Entry Level in Science and Further Science specifications, to help you get to grips with the changes to content and assessment, and to help you understand what these mean for you and your students.

We've listened to feedback from all parts of the science community and taken this redevelopment as an opportunity to redesign the Entry Level Certificate so it complements GCSE Science (9-1) by closely matching the programme of study. The Certificate provides a progression route to GCSE but also supports advancement in science by cementing core understanding and maximising engagement with the subject.

The Entry Level Certificate qualifications are designed to be taught in small steps, to meet students' individual learning styles and each unit is only assessed when you decide that your students are ready.

Co-teachability with GCSE Combined Science

Key aspects of the GCSE Combined Science qualification are reflected in the Entry Level Certificate to help with co-teachability. The careful selection of appropriate subject content and the alignment of topics within the two qualifications ensures learners can retain the option to attempt the GCSE examinations should they progress well through the Entry Level course. Equally, students who have followed the GCSE Combined Science course will have the option to sit the Entry Level Certificate tests.

We will be providing lots of support to help you plan and implement the new specification, including course planners and schemes of work showing how GCSE and Entry level map together. These will be found on our Entry Level Science website pages.

Assessments designed to encourage progression to GCSE

The Entry Level Certificate in Science and Further Science assessments prepare students for GCSE by drawing on the same key elements of assessment whilst retaining the flavour of Entry Level assessments that are more structured and can be taken at any time during the course. The smaller units, the speedier school based marking of the assessments and the flexibility of when the tests are taken are all designed to give students a clear picture of their progress and the encouragement that can be drawn from this.

Sample assessment materials can be found on our Entry Level Science webpages.

2. What's changed?

2.1 What are the changes to the Entry Level Certificate in Science?

Following the redevelopment of GCSE Science for 2016, the Entry Level Certificate has been redeveloped to align with new content and support progression within Science.

The Entry Level qualification in Science is now made up of two qualifications:

- The Entry Level Certificate in Science
- The Entry Level Certificate in Further Science

The new certificates in Science and Further Science are each made up of 6 units, each with a test. There are no assignments like the 2013 ELC and practical skills are assessed in the unit tests in the same style as GCSE (9-1).

2.2 Changes to the specification

Specification overview

The new Entry Level Certificates in Science and Further Science are designed to sit alongside GCSE (9-1) Combined Science, both being based on the key stage 4 programme of study.

The content covered in each GCSE (9-1) Combined Science foundation tier paper has been split into two parts for the Entry Level Certificate(s). Each of these parts makes up a new assessment paper for the Entry Level Certificate(s) as shown in the table below.

GCSE Combined Science	ELC Science tests	ELC Further Science tests
B1	Paper 1: Biology 1A Paper 2: Biology 1B	
C1	Paper 3: Chemistry 1A Paper 4: Chemistry 1B	
P1	Paper 5: Physics 1A Paper 6: Physics 1B	
B2		Paper 1: Biology 2A Paper 2: Biology 2B
C2		Paper 3: Chemistry 2A Paper 4: Chemistry 2B
P2		Paper 5: Physics 1A

Changes to specification content

The specification content of the new Entry Level Certificate in Science and Further Science has been amended from the existing Entry Level Certificate in Science. We have aligned the content more closely with the GCSE (9-1) Combined Science foundation level and carefully selected content that is appropriate for learners at Entry Level.

The ELC specifications have been designed to cover the full key stage 4 programme of study rather than selecting elements of it as with the 2013 Entry Level Certificate.

Please see section 4 'content guidance' for further details.

Changes to assessment

We have designed our assessments so they are fit for purpose for learners not yet ready for GCSE.

Each unit has an externally set test. The tests can be taken when learners are ready, whether this is at the end of each unit, end of term, or end of year with our Certificate and Further Certificate qualifications. This will allow you to build-up evidence in a modular way over the duration of the course.

The assessment papers now more closely resemble the style of the GCSE (9-1) Combined Science papers. As with GCSE, we have worked with language experts to ensure the readability and clarity of our assessments, allowing learners to demonstrate their understanding. Types of questions include multiple choice, short structured answers, and scaffolded free responses to guide students through the paper and allow them to focus on the science. There are no 6 mark 'extended open response' questions and each paper consists of 25 marks.

3. Planning

3.1 Planning and Delivery models

Identifying Entry Level Certificate students

The Entry Level Certificates are a suitable choice for students who may find the GCSE (9-1) Combined Science course challenging.

The course will enable Low Attainers to acquire a body of basic scientific knowledge and understanding; to acquire a wider knowledge and understanding of some of the important applications of science to their lives and the world they live in. Covering the Key stage 4 programme of study, the course will provide a progression route to GCSE Combined Science.

Delivering ELC alongside GCSE (9-1) Combined Science

We have designed our schemes of work and course planners to focus on teaching the Edexcel GCSE (9-1) Combined Science foundation tier to students who face significant barriers in engagement, literacy and recall. In addition, the schemes of work prepare students to take assessments in the Entry Level Certificates in Science and Further Science.

There are many ways to structure your course and we recognise the need for flexibility. For example, courses may be taught over different years and accommodating different amounts of teaching time. We have covered a few routes through the free schemes of work and course planners available on our website to download from autumn 2017.

Options you may consider include:

- Identifying your lower attainers and only teaching the Entry Level Certificate in Science and/or Further Science
- Teaching all students GCSE Science foundation tier content and either extending GCSE learning or consolidating/recapping and taking the ELC assessments. This is otherwise known as a spiral curriculum.
- Teaching all students GCSE Science foundation tier and integrating the ELC assessments at the end of each topic

3.3 Suggested resources

Schemes of work

Our schemes of work will show how students can cover elements of GCSE (9-1) Combined Science as well as the Entry Level Certificates in Science and Further Science. Students will have the option in Year 11 to either consolidate the Entry Level Certificate and take their final assessments for these, or strengthen and extend GCSE knowledge to enter for the GCSE (9-1) Combined Science qualification.

You could also use the Entry Level Science content in the schemes of work independently of the GCSE if you are not planning to enter a group of students for GCSE (9-1) Combined Science.

There are two different types of schemes of work we will be developing:

Scheme of work 1

This Scheme of work assumes that students will spend around 4 hours of teaching time on each topic and will in the first year take the Entry Level Certificate assessments at regular points.

Scheme of work 2

This scheme of work assumes students will spend around 2 hours of teaching time on each topic. Students will complete all the topics by the end of Year 10. Year 11 is then spent covering the topics a second time with the option of focusing on either Entry Level Certificate or GCSE Combined Science skills and knowledge. (spiral)

Course planners

We are aware that Science teaching time varies widely between schools. In producing our course planners, we have consulted with many schools on the teaching time allocated to Science. This information has been used to calculate the average number of hours of teaching available to students studying GCSE (9-1) Combined Science or other Key Stage 4 courses, such as the Entry Level Certificates.

The table below shows the approximate number of teaching hours on which our course planners are based for GCSE (9-1) Combined Science, as well as the ELC in Science and Further Science.

	3 year	2.5 year	2 year	1 year
GCSE (9-1) Combined Science	416 hours	340 hours	260 hours	NA
Entry Level Certificate in Science				60-120 hours
Entry Level Certificate in Science & Further			120-240 hours	

In a school where GCSE (9-1) Combined Science foundation tier is taught over 2 years, integrating the delivery of the Entry Level Certificate in Science and Further Science, your model may look like this:

Year	Number of teaching hours per week	Number of teaching weeks	Total number of hours per year
10	4	39	156

11	4	27 (to allow for revision and GCSE exams or, retake of the ELC tests)	108
Total number of hours to deliver Combined Science foundation tier and/or Entry Level Certificates in Science and Further Science		264	

If you are a school where you are only teaching the Entry Level Certificates, your model may look similar.

4. Content guidance

4.1 Edexcel Certificate in Science

Overview of topics that make up the ELC in Science:

Edexcel Certificate in Science	
Paper 1: Biology 1A	Cells, genetics, inheritance and modification
Paper 2: Biology 1B	Health, disease and the development of
Paper 3: Chemistry 1A	Atoms, compounds and States of Matter
Paper 4: Chemistry 1B	Separating mixtures, Breaking down substances
Paper 5: Physics 1A	Forces, movement and energy
Paper 6: Physics 1B	Waves and radiation

4.3 Edexcel Certificate in Further Science

Overview of topics that make up the ELC in Further Science:

Edexcel Certificate in Further Science	
Paper 1: Biology 2A	Plants and ecosystems
Paper 2: Biology 2B	Human biology
Paper 3: Chemistry 2A	Chemical reactions: patterns, energy and rates of reaction
Paper 4: Chemistry 2B	Chemistry in our world: fuels and the earth's atmosphere
Paper 5: Physics 2A	Electricity and magnets
Paper 6: Physics 2B	Energy and particles

5. Assessment guidance

The GCSE assessment objectives have also been used for the Entry Level Certificate in Science and Further Science.

Assessment Objectives and weightings		% in Entry Level Certificate
AO1	Demonstrate knowledge and understanding of scientific ideas, scientific techniques and procedures.	45%
AO2	Apply knowledge and understanding of scientific ideas, enquiry, techniques and procedures.	40%
AO3	Analyse, interpret and evaluate evidence, draw conclusions, develop experimental procedures.	15%

5.1 Assessment overview

The Entry Level Certificate in Science

Paper 1 Biology 1A	Paper 3 Chemistry 1A	Paper 5 Physics 1A
Paper 2 Biology 1B	Paper 4 Chemistry 1B	Paper 6 Physics 1B

The Entry Level Certificate in Further Science

Paper 1 Biology 2A	Paper 3 Chemistry 2A	Paper 5 Physics 2A
Paper 2 Biology 2B	Paper 4 Chemistry 2B	Paper 6 Physics 2B

Extra information for each test

- Externally-set tests, administered and marked by the centre and moderated by Pearson. There is no set time for when each test is completed or how long the student takes to complete each test.
- 25 marks for each test, where each test is 16.67% of the qualification
- Students should answer all questions.
- Calculators may be used in the test.
- The test will include questions that target maths, at the level of Key Stage 3 maths.

5.2 Question styles

Like our GCSE Science papers, our assessments are made up of a range of question styles. These include:

- Single word response
- Multiple-choice questions
- Word boxes in various forms, such as three to six words in a box, words to be used once only and all words used
- Simple perspective drawings and diagrams
- Simple arithmetic
- Word boxes in various forms, four to six words in a box, words to be used once, more than once or not at all
- Simple free response
- Draw graphs, pie or bar charts using data provided
- Interpret simple pie and bar charts, tables and histograms, and extract data from simple data tables
- Recognise trends/patterns in simple data tables and line graphs
- Draw conclusions from experimental results provided

5.3 Assessing practical skills

One of the drivers when developing the new specifications was the removal of core practicals or compulsory practical work. In each test paper there are now 5 marks which are in some way more practically based and linked to the content of the unit.

Students may be given a full description of an investigation which stems from the specification statement and asked to comment on the results/draw conclusions or the question is based on material they will inevitably have seen or experienced as a topic is taught, for example, at EL1 they might be asked to name a piece of equipment.

Practical types of questions

Practical questions make up approximately 5 marks on a paper.

- Plan an experiment
- Identify equipment needed for a specific purpose

- State what would be observed in given practical situations, e.g. describe what happens when carbon dioxide passes through limewater
- Describe how to carry out simple scientific tests from the spec content, e.g. test for carbon dioxide
- Suggest how an experiment may be improved (including fair test)

5.4 Availability of papers and mark schemes

Sample papers and mark schemes for ELC Science:

- Papers 2, 4 and 6 are available on the website.
- Papers 1, 3 and 5) will be published in October 2016.

Live papers and mark schemes for ELC Science:

- Papers 1, 3 and 5 will be published in October 2016.
- Papers 2, 4 and 6 will be published in February 2017.

The live materials outlined above will be valid for the lifetime of the qualification.

Materials for ELC Further Science will be available for first teaching from September 2017.

6. Administering the tests

The tests are designed to be taken when your students are ready. Usually, this will be once you have finished teaching the relevant section of content from the specification.

When you are ready to administer the test, you can download a clean master copy of the test and mark scheme from the secure area of the website (quals.pearson.com/elc) and print then photocopy a paper for each of your students. If you download the tests in advance, they must be kept confidential and must be kept under secure conditions at all times. The tests and mark schemes will remain valid for the lifetime of the qualification.

Other points to be aware of:

- The test can be sat in normal classroom conditions but other examination procedures apply, regarding invigilation and safeguards against communication between students.
- There is no set time for when each test is completed or how long the student takes to complete each test.
- Students have the opportunity to retake the tests as many times as they like. However, no feedback or guidance on their original answers should be provided.
- There must be a gap of at least two weeks before they can retake the tests (each time it is retaken).

6.1 Marking and moderation

Marking the tests

Once your students have taken the test, you should mark it according to the published mark scheme. We would recommend that for each qualification (Science and Further Science), each student takes as many of the six tests as possible. However, students do not need to complete all tests for you to submit an entry for them.

You may want to consider the cumulative marks gained by each student and how this relates to the level they will be likely to achieve. See page 11 for more information on how the marks relate to the level of achievement.

Moderation

Once you are satisfied your students have sat a sufficient number of tests, you will need to submit their best score for each test using the assessment record and authentication sheet in Appendix 1 of the ELC specification. The example below is for a student who has taken the first 4 papers, but not sat the final two. If a student has taken a particular test more than once, only their best score needs to be filled in for this record sheet, not every attempt e.g. If a student took paper 1 three times, and achieved 10, 15, 19 as their marks, you would only put in the highest score.

Test	Mark awarded
Paper 1: Biology 1A – Cells, genetics, inheritance and modification	19 /25
Paper 2: Biology 1B – Health, disease and the development of medicines	14 /25
Paper 3: Chemistry 1A – Atoms, compounds and states of matter	20 /25
Paper 4: Chemistry 1B – Separating mixtures, breaking down substances, acids and metals	15 /25
Paper 5: Physics 1A – Forces, movement and energy	/25
Paper 6: Physics 1B – Waves and radiation	/25
Total marks	68 /150

These final marks on this form should be submitted to us for moderation by May in the year of certification. This means that all the tests that you would like to submit for your students need to be completed by this date.

The first certification for ELC Science will be Summer 2017, and for ELC Further Science will be 2018.

Once we have received the forms for your students we will [request selected papers to be sent in to us for moderation. Moderation sample sizes vary depending on the cohort size but in cohorts of up to 100, the sample size will be 10 candidates or all candidates if the entry number is lower than 10.

Level of achievement

Marks for the externally set tests are combined to give a maximum mark of 150 as shown above. Your student's total mark out of 150 then gives you the level they have achieved as shown in the table below:

Level	Minimum total marks required
Fail	Below 30
Entry Level 1	30/150
Entry Level 2	65/150
Entry Level 3	100/150

The student above has achieved 68/150, and so would be looking at Entry Level 2.

7. Entries and fees

The ELC in Science and ELC in Further Science are two separate qualifications with separate entry codes, and fees.

The entry codes for both these qualifications are below:

	ELC Science	ELC Further Science
Regulated Qualification Framework (RQF) code Each qualification title is allocated an Ofqual Regulated Qualifications Framework (RQF) code. The RQF code is known as a Qualification Number (QN). This is the code that features in the DfE Section 96 and on the LARA as being eligible for 16–18 and 19+ funding, and is to be used for all qualification funding purposes. The QN will appear on students' final certification documentation.	The QN for this qualification is: 603/0396/7	XXX/XXXX/X (these will be confirmed by Summer 2017)
Subject code The subject code is used by centres to enter students for a qualification. Centres will need to use the entry codes only when claiming students' qualifications	Entry Level – NSCO	XXXX (these will be confirmed by Summer 2017)

Entry fees and registration deadlines for these qualifications can be found in our General Qualifications UK fees document which is available on our website: qualifications.pearson.com/en/support/support-topics/centre-administration/fees.html

Details of how to enter students for the examinations for this qualification can be found in our UK Information Manual. A copy is made available to all examinations officers and is available on our website: qualifications.pearson.com

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