

ENTRY LEVEL

Moderators' report

SCIENCE

R483

For first teaching in 2016

R483/01/02 Summer 2022 series

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Introduction

Our moderators' reports are produced to offer constructive feedback on centre's assessment of moderated work, based on what has been observed by our moderation team. These reports include a general commentary of accuracy of internal assessment judgements; identify good practice in relation to evidence collation and presentation and comments on the quality of centre assessment decisions against individual Learning Objectives. This report also highlights areas where requirements have been misinterpreted and provides guidance to centre assessors on requirements for accessing higher mark bands. Where appropriate, the report will also signpost to other sources of information that centre assessors will find helpful.

OCR completes moderation of centre-assessed work to quality assure the internal assessment judgements made by assessors within a centre. Where OCR cannot confirm the centre's marks, we may adjust them to align them to the national standard. Any adjustments to centre marks are detailed on the Moderation Adjustments report, which can be downloaded from Interchange when results are issued. Centres should also refer to their individual centre report provided after moderation has been completed. In combination, these centre-specific documents and this overall report should help to support centres' internal assessment and moderation practice for future series.

Advance Information for Summer 2022 assessments

To support student revision, advance information was published about the focus of exams for Summer 2022 assessments. Advance information was available for most GCSE, AS and A Level subjects, Core Maths, FSMQ, and Cambridge Nationals Information Technologies. You can find more information on our [website](#).

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General overview

General overview/Introduction Entry Level Science R483 is course designed to provide students with realistic targets encouraging them to develop science skills. This will allow some more able candidates to progress to GCSE Sciences.

It is assessed in three elements, Element 1: End-of-item Tests, Element 2: Can-do Tasks and Element 3: Practical Task.

Recognising the disruption in centres since 2020, changes were made to the submission requirements for assessment in 2022 only. These were:

- the best 24 End-of-item Tests, each worth up to 3 points, instead of 36 End-of-item Tests each worth up to 2 points
- 8 Can-do Tasks each worth 1 point instead of 16 Can-do Tasks each worth ½ point
- allowing candidates to use alternatives to practical tasks provided by OCR.

Only a few centres appeared to be unaware of these changes, and the majority used the Interactive Candidate Record Card which automatically calculated individual points conversions and the overall points total.

Clerical error checks involve making sure that End-of-item Test marks are correctly transferred onto the Candidate Record Card, marks converted to points correctly and overall points totals calculated correctly. There were a significant number of clerical errors detected.

OCR support



The use of the [Interactive Candidate Record Card](#) does eliminate some errors and its use is to be encouraged.

End-of-item Tests should be submitted in subject and numerical order from B1 to P12 to allow ease of checking and finding tests to moderate. It is helpful if portfolios of work are either held together with treasury tag(s) on left hand side of page or collated into an A3 copy of the Candidate Record Card.

Some centres entered via the OCR repository or submitted work by other electronic means. Please make sure that the quality of any scanned work is such that it can be read. Line graphs drawn in pencil are often illegible once scanned.

Candidates who did well generally did the following:	Candidates who did less well generally did the following:
<ul style="list-style-type: none"> • completed at least half of the End-of item Tests across all three subject areas • completed at least eight Can-do Tasks • completed a Practical Task which allowed them access to all aspects. 	<ul style="list-style-type: none"> • completed a limited number of End-of-item Tests • completed a few Can-do Tasks • completed a Practical Task that only allowed them to compare a couple of results.

Common misconceptions

Misconception



The original grade boundaries were 40% (Level 1), 60% (Level 2) and 80% (Level 3). However, grade boundaries change year on year. Centres are advised to check the grade boundaries for previous years, which can be found [here](#).

Misconception



Candidates often confuse accuracy and reliability when writing their Practical Task reports. Repeated readings do not improve the accuracy of their data, but similar repeated readings do improve the reliability of their data.

Moderators have reported seeing very little work from candidates with marks below 40%. Centres might like to consider entering candidates with marks below 40%.

Centres are advised to look at the grade boundaries for Entry Level Science year on year. The previous R591 Entry Level Science course had grade boundaries of 40% (Level 1), 60% (Level 2) and 80% (Level 3). The grade boundaries for this R483 Entry Level Science have been lower.

Avoiding potential malpractice

It is very common for candidates to work together, and this is quite acceptable. There will often be identical tables of results which could even have resulted from a teacher demonstration or from a printed task provided by OCR. However, plans and subsequent analysis of the data should be the candidates' own unaided work. It was pleasing to note that some centres annotated practical tasks to show where candidates had worked together and the relative contribution from each of them. Marks for the particular Aspect being given accordingly.

Helpful resources

Specification R483 has its own dedicated webpage, <https://www.ocr.org.uk/qualifications/entry-level-science-r483-from-2016/assessment/> where useful resources such as exemplars, activity packs, and a support booklet can be found.

Additional comments

End-of-item Tests

There are two versions of the End-of-item Tests available from Interchange. These are versions 3 and 4. Centres may use either of these versions.

Subject Update – End-of-item tests

Versions 1 and 2 of the End-of-item tests should not longer be used for the June 2025 series onwards. Centres are also reminded that we no longer accept tests from the previous Entry Level Certificate specification R591. Please see our [subject update](#) for more information.

Mark schemes accompany each of the tests and these provide acceptable responses to the questions. It can never be possible to list every possible response candidates will provide, and markers should credit any correct response not included. It is helpful to the moderator if this is noted, either on the candidates work or written onto the mark scheme and submitted at the time of moderation.

The marking of the End-of-item Tests was usually to a very high standard, with few marking errors reported.

Some common mistakes included:

- using green or purple pen – please use red to mark as moderators use green or purple for checking
- ringing or amending the mark allocation at the end of the question – please use ticks or crosses close to where a mark is scored (or not)
- crediting the correct responses but in the wrong place – this is particularly noticeable when labelling diagrams or filling gaps
- awarding full marks for a part answered question – some questions worth 2 or more marks require two or more ideas, each idea being worth one mark
- not awarding marks for calculations – most calculations are worth 2 marks for the correct response and 1 mark for showing correct working without the correct response
- awarding a benefit of doubt mark inappropriately – please be aware of the context of the question, for example, C12 (v3) Question 1 asked about identical DNA followed by a question about fingerprints being unique, where the mark scheme stated, “identical twins” but many markers allowed just “twins”.

Can-do Tasks

The majority of candidates completed eight Can-do Tasks. In future, they should complete up to sixteen to gain maximum points.

Often, practical tasks will involve skills included within the list of Can-do Tasks. These are not always given, and this is to the detriment of the candidate. Centres are advised that if a Can-do Task skill is met whilst carrying out a practical task, they should give the mark.

Practical Tasks

Some practical tasks, such as craters, allow candidates to access all five aspects. Others, such as which is the best insulator, limit what can be assessed.

Writing frames are used by many centres, and these allow candidates to organise their reports in a logical manner and encourage them to think about all aspects. Such writing frames should be generic, as

frames designed for a particular task tend to limit the number of marks available due to the guidance being given.

Annotation on the candidates' work while marking usually allows moderators to confirm the mark given. Just five numbers on the Candidate Record Card, and no other annotation, means that the Practical Task really has to be marked from scratch by the moderator.

For Aspect A, candidates should individually think about and write their plan, including any equipment requirements and safety precautions. It is best if safety precautions are specific to the task and not just general requirements. Good practice was seen from many centres where marking of the plan had obviously been done before the actual investigation.

There are no marks for recording data as Aspect B assesses the candidates' ability to display the data in an appropriate manner. There is no requirement to repeat readings for this Aspect, although it is helpful to be able to refer to these later. To obtain maximum marks, candidates need to plot a line graph or bar chart, without help, labelling both axes (or table headings) with quantity and unit. Small errors of plotting are acceptable. If data is provided, either from a worksheet or teacher demonstration, this should be included in the report to allow graph plotting to be checked.

Most candidates either identified a trend or stated a comparison to achieve marks for Aspect C. Four or five sets of data are really required before a trend can be identified. An ...er ...er statement of the form "The higher the marble, the bigger the crater." should be given 4 marks and a comparison statement of the form "The fur fabric was best at keeping the water warm." warrants 2 marks.

It is suggested that the science behind a Practical Task is taught beforehand. Many candidates found it challenging to achieve marks for Aspect D; many just repeated their interpretation of the data.

While most candidates made simple comments about their procedure, most struggled to fully review their method. To achieve maximum marks, comments need to be included about the quality of the data. This is where repeated readings are useful as the closeness of such repeated readings could be mentioned or how close points on a line graph were to the line of best fit.

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