

ENTRY LEVEL

Moderators' report

COMPUTER SCIENCE

R354

For first teaching in 2015

R354/01/02 Summer 2023 series

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Introduction

Our moderators' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

Online courses

We have created online courses to build your confidence in delivering, marking and administering internal assessment for our qualifications. Courses are available for Cambridge Nationals, GCSE, A Level and Cambridge Technicals (2016).

Cambridge Nationals

All teachers delivering our redeveloped Cambridge Nationals suite from September 2022 are asked to complete the Essentials for the NEA course, which describes how to guide and support your students. You'll receive a certificate which you should retain.

Following this you can also complete a subject-specific Focus on Internal Assessment course for your individual Cambridge Nationals qualification, covering marking and delivery.

GCSE, A Level and Cambridge Technicals (2016)

We recommend all teachers complete the introductory module Building your Confidence in Internal Assessment, which covers key internal assessment and standardisation principles.

Following this you will find a subject-specific course for your individual qualification, covering marking criteria with examples and commentary, along with interactive marking practice.

Accessing our online courses

You can access all our online courses from our teacher support website [Teach Cambridge](#).

You will find links relevant to your subject under Assessment, NEA/Coursework and then Online Courses from the left hand menu on your Subject page.

If you have any queries, please contact our Customer Support Centre on 01223 553998 or email support@ocr.org.uk.

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General overview

Candidates were required to complete four exam papers, two computer system exams and two computational thinking exams. There are four exams for each type of paper and candidates can sit all four exams with the best combination submitted. The combination must be either Paper 1 and Paper 2, or Paper 3 and Paper 4. This is the same across both exams.

Candidates were also required to complete a programming project. There are three different projects that can be selected from, each one lending itself to different skills and programming language.

The majority of the projects were completed using Scratch, with some centres using Python.

The programming projects included a range of evidence, but the majority was as a written report or a presentation. Candidates produced written descriptions and screenshots of their projects to show the code they produced and evidence of their testing.

All assessment materials (exams and projects) are marked internally by the centre and then submitted for moderation.

Many centres submitted a combination of paper and digital work. Exam papers were often posted with projects uploaded to the repository or sent digitally. Some centres submitted projects as printed reports. Use of the repository is preferable or digital copies on a USB memory stick. Printed reports are not required, and the digital files can be submitted instead. CDs and DVDs are not recommended due to many computers no longer having in-built CD drives.

Candidates who did well generally:	Candidates who did less well generally:
<ul style="list-style-type: none"> • produced appropriate evidence of the final solution of their programming project, most commonly by showing the code they produced • produced screenshots to show their working solutions and support their testing evidence • used a range of approaches taken to the design stages, including combinations of flowcharts and pseudocode. Some candidates produced multiple flowcharts to show different stages of their problems while others created one long flowchart that included all processes. 	<ul style="list-style-type: none"> • produced evidence of their final solution but did not include how they developed their solution. This could be a diary showing the work produced in each lesson, or a narrative that describes the errors encountered and how these were corrected • produced limited evidence of testing covering only a small part of the project, or with little evidence of the results. Some candidates may find creating a video of them testing their solutions easier to produce, showing the systematic use of their project in all scenarios, instead of a formal testing table with screenshot evidence of the results.

Most common causes of centres not passing

Candidates could only be given marks for work that is produced and submitted for moderation. Where a candidate has not produced evidence of their project, and there is no work to submit, there cannot be any marks given.

Centres need to submit **all marked exam papers and projects** for each candidate. This needed to include a **complete mark sheet** that explains where and why marks were given.

Common misconceptions

Responses to the exams need to be **precise**. For example, 'a camera' as an input device is not enough for a digital camera because there are too many alternatives that a camera could be. A 'digital camera' is precise and indicates the understanding that it digitises the images.

The development section of the project requires more than the production of the solution. The development requires the story of the creation, for example the problems encountered during development and how these were corrected.

Key point call out – precision in answers

Encourage candidates to check that they are being sufficiently precise in their responses.

Avoiding potential malpractice

Centres need to submit the correct combinations of exams. For computer systems this must be either Paper 1 and Paper 2, or Paper 3 and Paper 4. In computational thinking the same rules apply, either Paper 1 and Paper 2, or Paper 3 and Paper 4. Candidates could sit all papers but then the submitted papers must match these combinations.

The project needs to be one of the three provided. These should be followed carefully to make sure that the requirements are being met.

Candidates could be provided help with their project work, however this needs to be recorded on the mark sheet and taken into account when marks are given. For example if a candidate has produced a fully working project with evidence of development, but had substantial support in doing this, they may only be given marks in the lowest band. A comment is required from the centre to explain this.

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ExamBuilder is **free for all OCR centres** with an Interchange account and gives you unlimited users per centre. We need an [Interchange](#) username to validate the identity of your centre's first user account for ExamBuilder.

If you do not have an Interchange account please contact your centre administrator (usually the Exams Officer) to request a username, or nominate an existing Interchange user in your department.

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