

Pearson Edexcel GCSE (9–1)

Computer Science

What's changed and why?

Ofqual asked all exam boards to assess programming skills by exam only. We've worked closely with you to decide how best to change our specification and assessment. We've listened to your feedback and made the following changes:

Subject Content

Our subject content has been clarified and simplified

We have defined what content to teach for each paper, making it easier for you to prepare your students for the exams.

We've clarified the units used in the specification

From 2020, students will use binary units - kibibytes, mebibytes etc. - to express file sizes and data capacity and base - 10 units to specify data transfer rates.

The 'Bigger Picture' topic has become 'Issues and Impact'

Our specification includes a new section on **cyber security**, and you've told us your students are keen to know more about this.

There's no longer any need for your students to learn Haggis pseudocode

Your students will instead work with algorithms expressed in an actual programming language or as a flow chart, a pseudocode in its true sense or an informal non-syntactic written description.



Assessment

Our Programming Language Subset (PLS) represents a reduced set of Python programming constructs

No assessment problem will require solutions outside of the scope of this PLS. Your students will have everything they need to get to grips with the programming fundamentals and how to use them to solve problems.

20-hour programming project

The requirement to complete a 20-hour programming project is no longer required or needed although students should still be given the opportunity to do practical programming.

Paper 1: Principles of Computer Science has undergone some change:

- ▶ each question focuses on one topic of the subject content
- ▶ the paper is 10 minutes shorter than our old assessment (1hr 30 mins)
- ▶ the number of essay questions have been reduced, and those that remain include more scaffolding to guide students.

Paper 2: Application of Computational Thinking has undergone a significant change and is now an onscreen assessment.

- ▶ You told us that students find the current paper 02 difficult because they have to respond on paper, so we have replaced the written assessment with our new onscreen assessment.
- ▶ We've removed the paper-based application of computational thinking paper, and replaced it with a 2-hour, on-screen practical programming exam.
- ▶ Students will use Python 3 and your own Integrated Development Environment (IDE) to complete a series of programming tasks.

We have made these changes because you told us that your students:

- ▶ prefer to not switch between topics within the same question
- ▶ really enjoy learning how to program and want the ability to design, write and test code and want this to be assessed and count towards their final grade.

Assessment

New onscreen assessment

In comparison with a traditional paper-based exam that relies on students reading and writing pseudocode, our new onscreen assessment will give them a **more practical and engaging assessment experience**. No internet connection is permitted or needed during the onscreen assessment.

Data files and the electronic PDF of the PLS can be downloaded on the morning of the exam.

We have at least three channels prepped and ready to go to ensure that this works smoothly. There are:

- ▶ secure download from our website
- ▶ secure download via Edexcel Online;
- ▶ the question paper delivery team are ready to secure file transfer on request if necessary.

We recognise that the onscreen assessment may pose a logistical challenge. Please see our **FAQ document** [↗](#) on how we can help with this.


Our assessment

The balance of theory and practical are equally weighted. Our overall assessment time is 3 hours and 30 mins with a total of 150 marks (75 marks per paper).

We've significantly reduced the number of command words used in our assessments, helping students to better understand how they should respond to each question. We have specific command words for each paper.

Support

We are developing a range of teaching and learning material to help you prepare for this new qualification and assessment style, including:

- ▶ three sets of sample papers that will be ready long before the first live assessment, as we know how important it is that your students are prepared and familiar with the assessments before they sit their exam
- ▶ a **Getting Started Guide** , providing additional guidance that clarifies what needs to be covered for each topic area
- ▶ a new interactive scheme of work
- ▶ lesson plans, activities and solutions
- ▶ a series of short videos that talk about the paper 2 assessment talking about the logistics of the exam and going through each question and mark scheme in details. Find them online here.
- ▶ Launch events and Getting Ready to Teach events.

Plus much more.

With your help, we've developed an innovative qualification that will provide a well rounded, practical experience of Computer Science for all of your students.

Get in touch

-  **Sign up online** to keep up to date with the latest updates
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