

Learning pathway

Advanced GCSE computer science

Who is this pathway for?

For teachers who are already confident in teaching the GCSE computer science specification and looking to improve student progress and attainment even further, this pathway will guide you through the more advanced elements of the curriculum.

1

Higher attainment in GCSE computer science - meeting the challenge of exams

Learn how to improve attainment in GCSE computer science, look at how students should tackle exam questions.  CP439 remote course

2

Programming with GUIs

Discover how to build your own Graphical User Interface (GUI) with Python and guizero.  CO217 online course

3

Supporting GCSE computer science at grades 1-3

Explore how to improve attainment in Computer Science for students working towards grades 1 - 3.  CP478 remote course

4

Programming 103: saving and structuring data

Learn how to save and structure data in external files, and import files back into your Python programs. Supported by Google.  CO219 online course

You might also consider...

You will find each of the courses featured below on our website by typing teachcomputing.org/courses/ and adding the course code at the end of the URL.

Remote courses:

Remote courses are live, interactive online sessions led by an experienced professional development leader.

Other courses to enhance this pathway:

[CP433](#) - Python programming: working with data

[CP420](#) - Representing algorithms using flowcharts and pseudocode

[CP464](#) - Python programming: analysis, design and evaluation

Online courses:

On-demand courses that offer a new and exciting way to learn about computing and digital making. Take part in these free online courses and learn at your own pace, in the comfort of your own home.

Other courses to enhance this pathway:

[CO221](#) - Introduction to web development

[CO210](#) - Object oriented programming in Python: create your own adventure game

[CO225](#) - Introduction to databases and SQL

Support to complete your pathway:

- Use the questionnaire on your dashboard to support you to find further suitable courses, based on your level of experience.
- **Download the CSA Handbook** to find out more about the topics, explore useful resources, identify further CPD and practice sample assessment questions.
- To find out more about the programme, our national support network and how we can help, email the team at info@teachcomputing.org.

Take the next step

Once you have completed your Subject knowledge certificate, if you work in secondary state-funded education you will receive free access to all our courses, including our follow-on **[Secondary certificate](#)**. This qualification can help to upskill your pedagogical practice, curriculum, and leadership.