

Learning pathway: Preparing to teach GCSE computer science

Who is this pathway for?

This learning pathway is designed for teachers who have already taught key stage 3 computing and want to improve their subject knowledge to meet the requirements of GCSE computer science.

Key Stage 4

 3 remote courses

 3 online courses

1

Python programming constructs

Learn how programs are constructed using the building blocks of sequencing, selection and iteration.

 CP423 remote course

2

The internet and cyber security

Build on knowledge of local computer networks to cover the globally connected systems forming the internet.

 CP432 remote course

3

Representing algorithms using flowcharts and pseudocode

Become confident in using the key building blocks of sequence, selection and iteration, and learn to apply algorithmic thinking.

 CP420 remote course

4

How computers work: demystifying computation

Explore the fundamentals of computing - computer architecture, binary logic, data processing, circuits, and more.

 CO206 online course

5

Understanding computer systems

Understand how the components of a computer system interact with each other on this online course for computing teachers.

 CO212 online course

6

An introduction to computer networking for teachers

Build your knowledge and understanding of computer networks as a computer science teacher.

 CO214 online course

You might also consider...

Remote learning:

Live courses that are delivered online by our network of Computing Hubs and can be accessed from home. Remote learning offers the flexibility of short sessions designed to fit around your day.

Other courses to enhance this pathway:

[CP431](#) - Computer processors

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

[CP430](#) - Search and sort algorithms

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:

[CO215](#) - Impact of technology: How to lead classroom discussions

[CO213](#) - Understanding maths and logic in computer science

[CO208](#) - Programming 102: think like a computer scientist

Take the next step

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.