

Learning pathway: New to computing

Who is this pathway for?

For teachers who are new to computing and looking to develop their subject knowledge, this learning pathway will give you a comprehensive introduction to the entire computer science curriculum up to GCSE level.

Key Stage 4



3 face to face or remote courses



3 online courses

1

Foundation knowledge of computer science for KS3 and GCSE

Explore the foundation subject knowledge required to teach the computing programme of study up to GCSE level.

CP426 remote

2

Introduction to algorithms, programming and data

Create some simple block-based computer programs and discover how to implement them in Python.

CP228 face to face
CP428 remote

3

Introduction to computer systems, networking and security

Learn about the different components of computer hardware, including devices not instantly recognisable as computers.

CP238 face to face
CP438 remote

4

How computers work: demystifying computation

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

CO206 online course

5

Programming 101: an introduction to Python for educators

Explore the basics of Python. Guided by the Raspberry Pi Foundation, you'll learn to code your first program.

CO207 online course

6

Impact of technology: how to lead classroom discussions

Discover the ethical, legal, cultural, and environmental concerns surrounding computer science.

CO215 online course

You might also consider...

Face to face and remote courses:

Face to face courses are led by our network of Computing Hubs across the country and can be accessed local to you. Live remote learning offers scheduled live, interactive online sessions led by an experienced practitioner.

Other courses to enhance this pathway:

[CP423](#) - Python programming constructs: sequencing, selection and iteration

[CP422](#) - Fundamentals of computer networks

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

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:

[CO214](#) - An introduction to computer networking for teachers

[CO209](#) - Representing data with images and sound: bringing data to life

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

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.