

Structure of the units of work

Every unit of work in the Teach Computing Curriculum contains: a unit overview; a learning graph, to show the progression of skills and concepts in a unit; lesson content

- including a detailed lesson plan, slides for learners, and all the resources you will need; and formative and summative assessment opportunities.

Teach Computing Curriculum overview

Brief overview

| | Computing systems and networks | Creating media | Programming A | Data and information | Creating media | Programming B |
|--------|-------------------------------------|---------------------|------------------|----------------------|-----------------|------------------------|
| Year 1 | Technology around us | Digital painting | Moving a robot | Grouping data | Digital writing | Programming animations |
| | (1.1)* | (1.2) | (1.3) | (1.4) | (1.5) | (1.6) |
| Year 2 | Information technology around us | Digital photography | Robot algorithms | Pictograms | Making music | Programming quizzes |
| | (2.1) | (2.2) | (2.3) | (2.4) | (2.5) | (2.6) |

1Networks are not part of the key stage 1 national curriculum for computing but the title is used as a strand across primary.

*The numbers in the brackets are a 'quick code' reference for each unit, e.g. 1.3 refers to the third Year 1 unit in the recommended teaching order.



Unit summaries

| | Computing systems and networks | Creating media | Programming A | Data and information | Creating media | Programming B |
|--------|---|---|---|--|--|--|
| Year 1 | Technology around us Recognising technology in school and using it responsibly. | Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally. | Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes. | Grouping data Exploring object labels, then using them to sort and group objects by properties. | Digital writing Using a computer to create and format text, before comparing to writing non-digitally. | Programming animations Designing and programming the movement of a character on screen to tell stories. |
| Year 2 | Information technology around us Identifying IT and how its responsible use improves our world in school and beyond. | Digital photography Capturing and changing digital photographs for different purposes. | Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions. | Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer. | Making music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. | Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz. |



| National Curriculum Coverage — Years 1 and 2 | 1. Technology around us | .2 Digital painting | 1. 3 Moving a robot | .4 Grouping data | 5 Digital writing | Programminganimations | Informationtechnologyaround us | 2. 2 Digital photography | Robot algorithms | 2.4 Pictograms | 2. 5 Making music | Programmingquizzes |
|---|----------------------------|---------------------|------------------------|------------------|-------------------|-----------------------|--------------------------------|-----------------------------|---|----------------|----------------------|--------------------|
| | | | | 4. | 1.5 | - 0 | ~ - 10 | | | | | 0 in |
| Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions | | | \checkmark | | | \checkmark | | | \checkmark | | | \checkmark |
| Create and debug simple programs | | | \checkmark | | | \checkmark | | | \checkmark | | | \checkmark |
| Use logical reasoning to predict the behaviour of simple programs | | | \checkmark | | | \checkmark | | | \checkmark | | | \checkmark |
| Use technology purposefully to create, organise, store, manipulate, and retrieve digital content | \checkmark | \checkmark | | \checkmark | \checkmark | | \checkmark | \checkmark | | \checkmark | \checkmark | \checkmark |
| Recognise common uses of information technology beyond school | \checkmark | | \checkmark | | | | \checkmark | \checkmark | | | | |
| Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies | 1 | | | 1 | 1 | | 1 | 1 | 1 | 1 | | |



Progression | Key Stage 1 Teacher Guide | 9

Progression

Progression across key stages

All learning objectives have been mapped to the National Centre for Computing Education's taxonomy of ten strands, which ensures that units build on each other from one key stage to the next.

Progression across year groups

Within the Teach Computing Curriculum, every year group learns through units within the same four themes, which combine the ten strands of the National Centre for Computing Education's taxonomy (see table, right).

This approach allows us to use the spiral curriculum approach (see the 'Spiral curriculum' section for more information) to progress skills and concepts from one year group to the next.

| Primary themes | Computing systems and networks | Programming | Data and information | Creating media | | | | | | |
|---------------------|---|--|----------------------|--|--|--|--|--|--|--|
| Taxonomy strands | Computer systems Computer networks | Programming Algorithms Design and development | Data and information | Creating media Design and development | | | | | | |
| | Effective use of tools | | | | | | | | | |
| | Impact of technology | | | | | | | | | |
| | Safety and security | | | | | | | | | |