Computing
KS1 2022-2023
Unit of work structure

# Teach Computing Curriculum overview

## Brief overview

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

[1] Networks are not part of the title as they are not used in the key stage 1 national curriculum for computing but refers to the third Year 1 across primary.

*The numbers 1.3 refers to the brackets are a 'quick code' reference in the for each recommended teaching unit, e.g. 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 | Digital photography | Robot algorithms | Pictograms | Digital music | |
|---|---|---|---|---|---|---|
| | Identifying IT and how its responsible use improves our world in school and beyond. | Capturing and changing digital photographs for different purposes. | Creating and debugging programs, and using logical reasoning to make predictions. | Collecting data in tally charts and using attributes to organise and present data on a computer. | 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 | 1.1 Technologyaroundus | 1.2 Digitalpainting | 1.3 a robot | 1.4 Groupingdata | 1.5 Digitalwriting | 1.6 Programming animations | 2.1 Information technologyaroundus | 2.2 Digitalphotography | 2.3 algorithms | 2.4 Pictograms | 2.5 Digitalmusic | 2.6 Programming quizzes |
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| Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions | | | | | | √ | | | √ | | | √ | | | √ |
| Create and debug simple programs | | | | | | √ | | | √ | | | √ | | | √ |
| Use logical reasoning to predict the behaviour of simple programs | | | | | | √ | | | √ | | | √ | | | √ |
| Use technology purposefully to create, organise, store, manipulate, and retrieve digital content | √ | √ | | √ | √ | | √ | √ | | √ | √ | | √ |
| Recognise common uses of information technology beyond school | √ | | √ | | | | √ | √ | | | | | |
| 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 | √ | | | √ | √ | | √ | √ | √ | √ | | | |