

Teach Computing – Progression of skills

Year Group	Suggested Order	Unit Name	Lesson	Learning Objectives
1	1	Computing systems and networks – Technology around us	1	-To identify technology
1	1	Computing systems and networks – Technology around us	2	-To identify a computer and its main parts
1	1	Computing systems and networks – Technology around us	3	-To use a mouse in different ways
1	1	Computing systems and networks – Technology around us	4	-To use a keyboard to type on a computer
1	1	Computing systems and networks – Technology around us	5	-To use the keyboard to edit text
1	1	Computing systems and networks – Technology around us	6	-To create rules for using technology responsibly
1	2	Creating media – Digital painting	1	-To describe what different freehand tools do
1	2	Creating media – Digital painting	2	-To use the shape tool and the line tools

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1	2	Creating media – Digital painting	3	-To make careful choices when painting a digital picture
1	2	Creating media – Digital painting	4	-To explain why I chose the tools I used
1	2	Creating media – Digital painting	5	-To use a computer on my own to paint a picture
1	2	Creating media – Digital painting	6	-To compare painting a picture on a computer and on paper
1	3	Programming A – Moving a robot	1	-To explain what a given command will do
1	3	Programming A – Moving a robot	2	-To act out a given word
1	3	Programming A – Moving a robot	3	-To combine forwards and backwards commands to make a sequence
1	3	Programming A – Moving a robot	4	-To combine four direction commands to make sequences
1	3	Programming A – Moving a robot	5	-To plan a simple program
1	3	Programming A – Moving a robot	6	-To find more than one solution to a problem
1	4	Data and information – Grouping data	1	-To label objects
1	4	Data and information – Grouping data	2	-To identify that objects can be counted
1	4	Data and information – Grouping data	3	-To describe objects in different ways
1	4	Data and information – Grouping data	4	-To count objects with the same properties
1	4	Data and information – Grouping data	5	-To compare groups of objects

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1	4	Data and information – Grouping data	6	-To answer questions about groups of objects
1	5	Creating media – Digital writing	1	-To use a computer to write
1	5	Creating media – Digital writing	2	-To add and remove text on a computer
1	5	Creating media – Digital writing	3	-To identify that the look of text can be changed on a computer
1	5	Creating media – Digital writing	4	-To make careful choices when changing text
1	5	Creating media – Digital writing	5	-To explain why I used the tools that I chose
1	5	Creating media – Digital writing	6	-To compare typing on a computer to writing on paper
1	6	Programming B - Programming animations	1	-To choose a command for a given purpose
1	6	Programming B - Programming animations	2	-To show that a series of commands can be joined together
1	6	Programming B - Programming animations	3	-To identify the effect of changing a value
1	6	Programming B - Programming animations	4	-To explain that each sprite has its own instructions
1	6	Programming B - Programming animations	5	-To design the parts of a project
1	6	Programming B - Programming animations	6	-To use my algorithm to create a program

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2	1	Computing systems and networks – IT around us	1	-To recognise the uses and features of information technology
2	1	Computing systems and networks – IT around us	2	-To identify the uses of information technology in the school
2	1	Computing systems and networks – IT around us	3	-To identify information technology beyond school
2	1	Computing systems and networks – IT around us	4	-To explain how information technology helps us
2	1	Computing systems and networks – IT around us	5	-To explain how to use information technology safely
2	1	Computing systems and networks – IT around us	6	-To recognise that choices are made when using information technology
2	2	Creating media – Digital photography	1	-To use a digital device to take a photograph
2	2	Creating media – Digital photography	2	-To make choices when taking a photograph
2	2	Creating media – Digital photography	3	-To describe what makes a good photograph
2	2	Creating media – Digital photography	4	-To decide how photographs can be improved
2	2	Creating media – Digital photography	5	-To use tools to change an image
2	2	Creating media – Digital photography	6	-To recognise that photos can be changed

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2	3	Programming A – Robot algorithms	1	-To describe a series of instructions as a sequence
2	3	Programming A – Robot algorithms	2	-To explain what happens when we change the order of instructions
2	3	Programming A – Robot algorithms	3	-To use logical reasoning to predict the outcome of a program
2	3	Programming A – Robot algorithms	4	-To explain that programming projects can have code and artwork
2	3	Programming A – Robot algorithms	5	-To design an algorithm
2	3	Programming A – Robot algorithms	6	-To create and debug a program that I have written
2	4	Data and information – Pictograms	1	-To recognise that we can count and compare objects using tally charts
2	4	Data and information – Pictograms	2	-To recognise that objects can be represented as pictures
2	4	Data and information – Pictograms	3	-To create a pictogram
2	4	Data and information – Pictograms	4	-To select objects by attribute and make comparisons
2	4	Data and information – Pictograms	5	-To recognise that people can be described by attributes
2	4	Data and information – Pictograms	6	-To explain that we can present information using a computer
2	5	Creating media - Digital music	1	-To say how music can make us feel
2	5	Creating media - Digital music	2	-To identify that there are patterns in music
2	5	Creating media - Digital music	3	-To experiment with sound using a computer

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2	5	Creating media - Digital music	4	-To use a computer to create a musical pattern
2	5	Creating media - Digital music	5	-To create music for a purpose
2	5	Creating media - Digital music	6	-To review and refine our computer work
2	6	Programming B - Programming quizzes	1	-To explain that a sequence of commands has a start
2	6	Programming B - Programming quizzes	2	-To explain that a sequence of commands has an outcome
2	6	Programming B - Programming quizzes	3	-To create a program using a given design
2	6	Programming B - Programming quizzes	4	-To change a given design
2	6	Programming B - Programming quizzes	5	-To create a program using my own design
2	6	Programming B - Programming quizzes	6	-To decide how my project can be improved

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3	1	Computing systems and networks – Connecting computers	1	-To explain how digital devices function
3	1	Computing systems and networks – Connecting computers	2	-To identify input and output devices
3	1	Computing systems and networks – Connecting computers	3	-To recognise how digital devices can change the way we work
3	1	Computing systems and networks – Connecting computers	4	-To explain how a computer network can be used to share information
3	1	Computing systems and networks – Connecting computers	5	-To explore how digital devices can be connected
3	1	Computing systems and networks – Connecting computers	6	-To recognise the physical components of a network

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3	2	Creating media - Stop-frame animation	1	-To explain that animation is a sequence of drawings or photographs
3	2	Creating media - Stop-frame animation	2	-To relate animated movement with a sequence of images
3	2	Creating media - Stop-frame animation	3	-To plan an animation
3	2	Creating media - Stop-frame animation	4	-To identify the need to work consistently and carefully
3	2	Creating media - Stop-frame animation	5	-To review and improve an animation
3	2	Creating media - Stop-frame animation	6	-To evaluate the impact of adding other media to an animation

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3	3	Programming A - Sequencing sounds	1	-To explore a new programming environment
3	3	Programming A - Sequencing sounds	2	-To identify that commands have an outcome
3	3	Programming A - Sequencing sounds	3	-To explain that a program has a start
3	3	Programming A - Sequencing sounds	4	-To recognise that a sequence of commands can have an order
3	3	Programming A - Sequencing sounds	5	-To change the appearance of my project
3	3	Programming A - Sequencing sounds	6	-To create a project from a task description

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3	4	Data and information – Branching databases	1	-To create questions with yes/no answers
3	4	Data and information – Branching databases	2	-To identify the attributes needed to collect data about an object
3	4	Data and information – Branching databases	3	-To create a branching database
3	4	Data and information – Branching databases	4	-To explain why it is helpful for a database to be well structured
3	4	Data and information – Branching databases	5	-To plan the structure of a branching database
3	4	Data and information – Branching databases	6	-To independently create an identification tool

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3	5	Creating media – Desktop publishing	1	-To recognise how text and images convey information
3	5	Creating media – Desktop publishing	2	-To recognise that text and layout can be edited
3	5	Creating media – Desktop publishing	3	-To choose appropriate page settings
3	5	Creating media – Desktop publishing	4	-To add content to a desktop publishing publication
3	5	Creating media – Desktop publishing	5	-To consider how different layouts can suit different purposes
3	5	Creating media – Desktop publishing	6	-To consider the benefits of desktop publishing

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3	6	Programming B - Events and actions in programs	1	-To explain how a sprite moves in an existing project
3	6	Programming B - Events and actions in programs	2	-To create a program to move a sprite in four directions
3	6	Programming B - Events and actions in programs	3	-To adapt a program to a new context
3	6	Programming B - Events and actions in programs	4	-To develop my program by adding features
3	6	Programming B - Events and actions in programs	5	-To identify and fix bugs in a program
3	6	Programming B - Events and actions in programs	6	-To design and create a maze-based challenge

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4	1	Computing systems and networks – The Internet	1	-To describe how networks physically connect to other networks
4	1	Computing systems and networks – The Internet	2	-To recognise how networked devices make up the internet
4	1	Computing systems and networks – The Internet	3	-To outline how websites can be shared via the World Wide Web (WWW)
4	1	Computing systems and networks – The Internet	4	-To describe how content can be added and accessed on the World Wide Web (WWW)
4	1	Computing systems and networks – The Internet	5	-To recognise how the content of the WWW is created by people
4	1	Computing systems and networks – The Internet	6	-To evaluate the consequences of unreliable content

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4	2	Creating media - Audio production	1	-To identify that sound can be recorded
4	2	Creating media - Audio production	2	-To explain that audio recordings can be edited
4	2	Creating media - Audio production	3	-To recognise the different parts of creating a podcast project
4	2	Creating media - Audio production	4	-To apply audio editing skills independently
4	2	Creating media - Audio production	5	-To combine audio to enhance my podcast project
4	2	Creating media - Audio production	6	-To evaluate the effective use of audio

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4	3	Programming A – Repetition in shapes	1	-To identify that accuracy in programming is important
4	3	Programming A – Repetition in shapes	2	-To create a program in a text-based language
4	3	Programming A – Repetition in shapes	3	-To explain what 'repeat' means
4	3	Programming A – Repetition in shapes	4	-To modify a count-controlled loop to produce a given outcome
4	3	Programming A – Repetition in shapes	5	-To decompose a task into small steps
4	3	Programming A – Repetition in shapes	6	-To create a program that uses count-controlled loops to produce a given outcome

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4	4	Data and information – Data logging	1	-To explain that data gathered over time can be used to answer questions
4	4	Data and information – Data logging	2	-To use a digital device to collect data automatically
4	4	Data and information – Data logging	3	-To explain that a data logger collects ‘data points’ from sensors over time
4	4	Data and information – Data logging	4	-To recognise how a computer can help us analyse data
4	4	Data and information – Data logging	5	-To identify the data needed to answer questions
4	4	Data and information – Data logging	6	-To use data from sensors to answer questions

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4	5	Creating media – Photo editing	1	-To explain that the composition of digital images can be changed
4	5	Creating media – Photo editing	2	-To explain that colours can be changed in digital images
4	5	Creating media – Photo editing	3	-To explain how cloning can be used in photo editing
4	5	Creating media – Photo editing	4	-To explain that images can be combined
4	5	Creating media – Photo editing	5	-To combine images for a purpose
4	5	Creating media – Photo editing	6	-To evaluate how changes can improve an image

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4	6	Programming B – Repetition in games	1	-To develop the use of count-controlled loops in a different programming environment
4	6	Programming B – Repetition in games	2	-To explain that in programming there are infinite loops and count controlled loops
4	6	Programming B – Repetition in games	3	-To develop a design that includes two or more loops which run at the same time
4	6	Programming B – Repetition in games	4	-To modify an infinite loop in a given program
4	6	Programming B – Repetition in games	5	-To design a project that includes repetition
4	6	Programming B – Repetition in games	6	-To create a project that includes repetition

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5	1	Computing systems and networks - Systems and searching	1	-To explain that computers can be connected together to form systems
5	1	Computing systems and networks - Systems and searching	2	-To recognise the role of computer systems in our lives
5	1	Computing systems and networks - Systems and searching	3	-To experiment with search engines
5	1	Computing systems and networks - Systems and searching	4	-To describe how search engines select results
5	1	Computing systems and networks - Systems and searching	5	-To explain how search results are ranked
5	1	Computing systems and networks - Systems and searching	6	-To recognise why the order of results is important, and to whom

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5	2	Creating media - Video production	1	-To explain what makes a video effective
5	2	Creating media - Video production	2	-To identify digital devices that can record video
5	2	Creating media - Video production	3	-To capture video using a range of techniques
5	2	Creating media - Video production	4	-To create a storyboard
5	2	Creating media - Video production	5	-To identify that video can be improved through reshooting and editing
5	2	Creating media - Video production	6	-To consider the impact of the choices made when making and sharing a video

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5	3	Programming A – Selection in physical computing	1	-To control a simple circuit connected to a computer
5	3	Programming A – Selection in physical computing	2	-To write a program that includes count-controlled loops
5	3	Programming A – Selection in physical computing	3	-To explain that a loop can stop when a condition is met
5	3	Programming A – Selection in physical computing	4	-To explain that a loop can be used to repeatedly check whether a condition has been met
5	3	Programming A – Selection in physical computing	5	-To design a physical project that includes selection
5	3	Programming A – Selection in physical computing	6	-To create a program that controls a physical computing project

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5	4	Data and information – Flat-file databases	1	-To use a form to record information
5	4	Data and information – Flat-file databases	2	-To compare paper and computer-based databases
5	4	Data and information – Flat-file databases	3	-To outline how you can answer questions by grouping and then sorting data
5	4	Data and information – Flat-file databases	4	-To explain that tools can be used to select specific data
5	4	Data and information – Flat-file databases	5	-To explain that computer programs can be used to compare data visually
5	4	Data and information – Flat-file databases	6	-To use a real-world database to answer questions

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5	5	Creating media – Introduction to vector graphics	1	-To identify that drawing tools can be used to produce different outcomes
5	5	Creating media – Introduction to vector graphics	2	-To create a vector drawing by combining shapes
5	5	Creating media – Introduction to vector graphics	3	-To use tools to achieve a desired effect
5	5	Creating media – Introduction to vector graphics	4	-To recognise that vector drawings consist of layers
5	5	Creating media – Introduction to vector graphics	5	-To group objects to make them easier to work with
5	5	Creating media – Introduction to vector graphics	6	-To apply what I have learned about vector drawings

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5	6	Programming B – Selection in quizzes	1	-To explain how selection is used in computer programs
5	6	Programming B – Selection in quizzes	2	-To relate that a conditional statement connects a condition to an outcome
5	6	Programming B – Selection in quizzes	3	-To explain how selection directs the flow of a program
5	6	Programming B – Selection in quizzes	4	-To design a program which uses selection
5	6	Programming B – Selection in quizzes	5	-To create a program which uses selection
5	6	Programming B – Selection in quizzes	6	-To evaluate my program

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6	1	Computing systems and networks - Communication and collaboration	1	-To explain the importance of internet addresses
6	1	Computing systems and networks - Communication and collaboration	2	-To recognise how data is transferred across the internet
6	1	Computing systems and networks - Communication and collaboration	3	-To explain how sharing information online can help people to work together
6	1	Computing systems and networks - Communication and collaboration	4	-To evaluate different ways of working together online
6	1	Computing systems and networks - Communication and collaboration	5	-To recognise how we communicate using technology
6	1	Computing systems and networks - Communication and collaboration	6	-To evaluate different methods of online communication

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6	2	Creating media – Web page creation	1	-To review an existing website and consider its structure
6	2	Creating media – Web page creation	2	-To plan the features of a web page
6	2	Creating media – Web page creation	3	-To consider the ownership and use of images (copyright)
6	2	Creating media – Web page creation	4	-To recognise the need to preview pages
6	2	Creating media – Web page creation	5	-To outline the need for a navigation path
6	2	Creating media – Web page creation	6	-To recognise the implications of linking to content owned by other people

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6	3	Programming A – Variables in games	1	-To define a 'variable' as something that is changeable
6	3	Programming A – Variables in games	2	-To explain why a variable is used in a program
6	3	Programming A – Variables in games	3	-To choose how to improve a game by using variables
6	3	Programming A – Variables in games	4	-To design a project that builds on a given example
6	3	Programming A – Variables in games	5	-To use my design to create a project
6	3	Programming A – Variables in games	6	-To evaluate my project

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6	4	Data and information – Spreadsheets	1	-To create a data set in a spreadsheet
6	4	Data and information – Spreadsheets	2	-To build a data set in a spreadsheet
6	4	Data and information – Spreadsheets	3	-To explain that formulas can be used to produce calculated data
6	4	Data and information – Spreadsheets	4	-To apply formulas to data
6	4	Data and information – Spreadsheets	5	-To create a spreadsheet to plan an event
6	4	Data and information – Spreadsheets	6	-To choose suitable ways to present data

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6	5	Creating media – 3D Modelling	1	-To recognise that you can work in three dimensions on a computer
6	5	Creating media – 3D Modelling	2	-To identify that digital 3D objects can be modified
6	5	Creating media – 3D Modelling	3	-To recognise that objects can be combined in a 3D model
6	5	Creating media – 3D Modelling	4	-To create a 3D model for a given purpose
6	5	Creating media – 3D Modelling	5	-To plan my own 3D model
6	5	Creating media – 3D Modelling	6	-To create my own digital 3D model

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6	6	Programming B - Sensing movement	1	-To create a program to run on a controllable device
6	6	Programming B - Sensing movement	2	-To explain that selection can control the flow of a program
6	6	Programming B - Sensing movement	3	-To update a variable with a user input
6	6	Programming B - Sensing movement	4	-To use a conditional statement to compare a variable to a value
6	6	Programming B - Sensing movement	5	-To design a project that uses inputs and outputs on a controllable device
6	6	Programming B - Sensing movement	6	-To develop a program to use inputs and outputs on a controllable device