



Teach Computing Curriculum Map

Welcome to the **Teach Computing Curriculum** Map, this document provides an overview of the units and lessons designed for students aged 5-7 (Key Stage 1). Additional mapping documents are available for other ages at teachcomputing.org/curriculum.

Use this document to explore the curriculum, how it is structured and most importantly how it meets the objectives of the English national curriculum. You can also use this document to discover how the curriculum content connects to other frameworks such as **Education for a connected world** and various exam specifications (where relevant).

You are also able to explore progression within the curriculum materials as each objective is mapped to one or more of the 10 strands within our content taxonomy. For example if you want to understand how skills and concepts around **networks** are developed you can do so, by simply filtering your view to hide all non-network related objectives.

Statement Number
1.1
1.2
1.3
1.4
1.5
1.6

National Curriculum Statement
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.

Teach	
Abbreviation	Strand
NW	Networks
CM	Creating Media
DI	Data & Information
DD	Design & Deveopment
CS	Computing Systems
IT	Impact of Technology
AL	Algorithms
PG	Programming
ET	Effective Use of tools
SS	Safety & Security

Computing Taxonomy

Description

Understand how networks can be used to retrieve and share information and come with associated risks

Select and create a range of media including text, images, sounds and video.

How is data stored, organised and used to represent real world artefacts and scenarios

The activities involved in planning, creating and evaluating computing artefacts

What is a computer, how do it's constituent parts function together as a whole

How individuals, systems and society as a whole interact with computer systems

Being able to comprehend, design, create and evaluate algorithms

Creating software to allow computers to solve problems

Use software tools to support computing work

Understanding risks when using technology and how to protect individuals and systems

2	5	Creating media - Digital music	3	-To experiment with sound using a computer	- I can connect images with sounds - I can relate an idea to a piece of music - I can use a computer to experiment with pitch - I can explain how my music can be played in different ways							Music
2	5	Creating media - Digital music	4	-To use a computer to create a musical pattern	- I can identify that music is a sequence of notes - I can refine my musical pattern on a computer - I can add a sequence of notes to my rhythm							Music
2	5	Creating media - Digital music	5	-To create music for a purpose	- I can create a rhythm which represents an animal I've chosen - I can create my animal's rhythm on a computer - I can explain how I changed my work							Music
2	5	Creating media - Digital music	6	-To review and refine our computer work	- I can listen to music and describe how it makes me feel - I can review my work							Music
2	6	Programming B - Programming quizzes	1	-To explain that a sequence of commands has a start	- I can identify that a program needs to be started - I can identify the start of a sequence - I can show how to run my program							
2	6	Programming B - Programming quizzes	2	-To explain that a sequence of commands has an outcome	- I can change the outcome of a sequence of commands - I can match two sequences with the same outcome - I can predict the outcome of a sequence of commands							
2	6	Programming B - Programming quizzes	3	-To create a program using a given design	- I can build the sequences of blocks I need - I can decide which blocks to use to meet the design - I can work out the actions of a sprite in an algorithm							
2	6	Programming B - Programming quizzes	4	-To change a given design	- I can choose backgrounds for the design - I can choose characters for the design - I can create a program based on the new design							
2	6	Programming B - Programming quizzes	5	-To create a program using my own design	- I can build sequences of blocks to match my design - I can choose the images for my own design - I can create an algorithm							
2	6	Programming B - Programming quizzes	6	-To decide how my project can be improved	- I can compare my project to my design - I can debug my program - I can improve my project by adding features							

4	6	Programming B – Repetition in games	3	-To develop a design that includes two or more loops which run at the same time	<ul style="list-style-type: none"> - I can choose which action will be repeated for each object - I can evaluate the effectiveness of the repeated sequences used in my program - I can explain what the outcome of the repeated action should be 																		
4	6	Programming B – Repetition in games	4	-To modify an infinite loop in a given program	<ul style="list-style-type: none"> - I can explain the effect of my changes - I can identify which parts of a loop can be changed - I can re-use existing code snippets on new sprites 																		
4	6	Programming B – Repetition in games	5	-To design a project that includes repetition	<ul style="list-style-type: none"> - I can develop my own design explaining what my project will do - I can evaluate the use of repetition in a project - I can select key parts of a given project to use in my own design 																		
4	6	Programming B – Repetition in games	6	-To create a project that includes repetition	<ul style="list-style-type: none"> - I can build a program that follows my design - I can evaluate the steps I followed when building my project - I can refine the algorithm in my design 																		
5	1	Computing systems and networks - Systems and searching	1	-To explain that computers can be connected together to form systems	<ul style="list-style-type: none"> - I can describe that a computer system features inputs, processes, and outputs - I can explain that computer systems communicate with other devices - I can explain that systems are built using a number of parts 																RSE and Health Education		
5	1	Computing systems and networks - Systems and searching	2	-To recognise the role of computer systems in our lives	<ul style="list-style-type: none"> - I can explain the benefits of a given computer system - I can identify tasks that are managed by computer systems - I can identify the human elements of a computer system 																	RSE and Health Education	Privacy and Security
5	1	Computing systems and networks - Systems and searching	3	-To experiment with search engines	<ul style="list-style-type: none"> - I can compare results from different search engines - I can make use of a web search to find specific information - I can refine my web search 																	RSE and Health Education	- Managing online information
5	1	Computing systems and networks - Systems and searching	4	-To describe how search engines select results	<ul style="list-style-type: none"> - I can explain why we need tools to find things online - I can recognise the role of web crawlers in creating an index - I can relate a search term to the search engine's index 																	RSE and Health Education	- Managing online information
5	1	Computing systems and networks - Systems and searching	5	-To explain how search results are ranked	<ul style="list-style-type: none"> - I can explain that a search engine follows rules to rank results - I can give examples of criteria used by search engines to rank results - I can order a list by rank 																	RSE and Health Education	- Managing online information
5	1	Computing systems and networks - Systems and searching	6	-To recognise why the order of results is important, and to whom	<ul style="list-style-type: none"> - I can describe some of the ways that search results can be influenced - I can explain how search engines make money - I can recognise some of the limitations of search engines 																	RSE and Health Education	- Managing online information
5	2	Creating media - Video production	1	-To explain what makes a video effective	<ul style="list-style-type: none"> - I can compare features in different videos - I can explain that video is a visual media format - I can identify features of videos 																		Online Relationships
5	2	Creating media - Video production	2	-To identify digital devices that can record video	<ul style="list-style-type: none"> - I can experiment with different camera angles - I can identify and find features on a digital video recording device - I can make use of a microphone 																		
5	2	Creating media - Video production	3	-To capture video using a range of techniques	<ul style="list-style-type: none"> - I can capture video using a range of filming techniques - I can review how effective my video is - I can suggest filming techniques for a given purpose 																		
5	2	Creating media - Video production	4	-To create a storyboard	<ul style="list-style-type: none"> - I can create and save video content - I can decide which filming techniques I will use - I can outline the scenes of my video 																		
5	2	Creating media - Video production	5	-To identify that video can be improved through reshooting and editing	<ul style="list-style-type: none"> - I can explain how to improve a video by reshooting and editing - I can select the correct tools to make edits to my video - I can store, retrieve, and export my recording to a computer 																		
5	2	Creating media - Video production	6	-To consider the impact of the choices made when making and sharing a video	<ul style="list-style-type: none"> - I can evaluate my video and share my opinions - I can make edits to my video and improve the final outcome - I can recognise that my choices when making a video will impact on the quality of the final outcome 																		
5	3	Programming A – Selection in physical computing	1	-To control a simple circuit connected to a computer	<ul style="list-style-type: none"> - I can create a simple circuit and connect it to a microcontroller - I can explain what an infinite loop does - I can program a microcontroller to make an LED switch on 																		Science (LKS2)- electricity, Design & Technology

6	2	Creating media – Web page creation	6	-To recognise the implications of linking to content owned by other people	-I can create hyperlinks to link to other people's work - I can evaluate the user experience of a website - I can explain the implication of linking to content owned by others															English- composition	
6	3	Programming A – Variables in games	1	-To define a 'variable' as something that is changeable	-I can explain that the way a variable changes can be defined - I can identify examples of information that is variable - I can identify that variables can hold numbers or letters																
6	3	Programming A – Variables in games	2	-To explain why a variable is used in a program	-I can explain that a variable has a name and a value - I can identify a program variable as a placeholder in memory for a single value - I can recognise that the value of a variable can be changed																
6	3	Programming A – Variables in games	3	-To choose how to improve a game by using variables	-I can decide where in a program to change a variable - I can make use of an event in a program to set a variable - I can recognise that the value of a variable can be used by a program																
6	3	Programming A – Variables in games	4	-To design a project that builds on a given example	-I can choose the artwork for my project - I can create algorithms for my project - I can explain my design choices																
6	3	Programming A – Variables in games	5	-To use my design to create a project	-I can choose a name that identifies the role of a variable - I can create the artwork for my project - I can test the code that I have written																
6	3	Programming A – Variables in games	6	-To evaluate my project	-I can identify ways that my game could be improved - I can share my game with others - I can use variables to extend my game																
6	4	Data and information – Spreadsheets	1	-To create a data set in a spreadsheet	-I can collect data - I can enter data into a spreadsheet - I can suggest how to structure my data																Maths- number, statistics
6	4	Data and information – Spreadsheets	2	-To build a data set in a spreadsheet	-I can apply an appropriate format to a cell - I can choose an appropriate format for a cell - I can explain what an item of data is																Maths- number, statistics
6	4	Data and information – Spreadsheets	3	-To explain that formulas can be used to produce calculated data	-I can construct a formula in a spreadsheet - I can explain which data types can be used in calculations - I can identify that changing inputs changes outputs																Maths- number, statistics
6	4	Data and information – Spreadsheets	4	-To apply formulas to data	-I can apply a formula to multiple cells by duplicating it - I can calculate data using different operations - I can create a formula which includes a range of cells																Maths- number, statistics
6	4	Data and information – Spreadsheets	5	-To create a spreadsheet to plan an event	-I can apply a formula to calculate the data I need to answer questions - I can explain why data should be organised - I can use a spreadsheet to answer questions																Maths- number, statistics
6	4	Data and information – Spreadsheets	6	-To choose suitable ways to present data	-I can produce a chart - I can suggest when to use a table or chart - I can use a chart to show the answer to questions																Maths- number, statistics
6	5	Creating media – 3D Modelling	1	-To recognise that you can work in three dimensions on a computer	-I can add 3D shapes to a project - I can move 3D shapes relative to one another - I can view 3D shapes from different perspectives																Art and design Design & technology Maths- 3D shapes
6	5	Creating media – 3D Modelling	2	-To identify that digital 3D objects can be modified	-I can lift/lower 3D objects - I can recolour a 3D object - I can resize an object in three dimensions																Art and design Design & technology Maths- 3D shapes
6	5	Creating media – 3D Modelling	3	-To recognise that objects can be combined in a 3D model	-I can duplicate 3D objects - I can group 3D objects - I can rotate objects in three dimensions																Art and design Design & technology Maths- 3D shapes
6	5	Creating media – 3D Modelling	4	-To create a 3D model for a given purpose	-I can accurately size 3D objects - I can combine a number of 3D objects - I can show that placeholders can create holes in 3D objects																Art and design Design & technology Maths- 3D shapes

