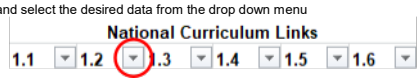
Teach Computing Curriculum Map

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.

To filter a column, click the filter control button in the column header and select the desired data from the drop down menu



Statement Number	National Curriculum Statement
1.1	understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
1.2	create and debug simple programs
1.3	use logical reasoning to predict the behaviour of simple programs
1.4	use technology purposefully to create, organise, store, manipulate and retrieve digital content
1.5	recognise common uses of information technology beyond school
1.6	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 Computing Taxonomy		
Abbreviation	Strand	Description
NW	Networks	Understand how networks can be used to retrieve and share information and come with associated risks
CM	Creating Media	Select and create a range of media including text, images, sounds and video.
DI	Data & Information	How is data stored, organised and used to represent real world artefacts and scenarios
DD	Design & Deveopment	The activities involved in planning, creating and evaluating computing artefacts
CS	Computing Systems	What is a computer, how do it's constituent parts function together as a whole
IT	Impact of Technology	How individuals, systems and society as a whole interact with computer systems
AL	Algorithms	Being able to comprehend, design, create and evaluate algorithms
PG	Programming	Creating software to allow computers to solve problems
ET	Effective Use of tools	Use software tools to support computing work
SS	Safety & Security	Understanding risks when using technology and how to protect individuals and systems

Year Group	Suggested Order	Unit Name	Lesson	Learning Objectives	Success Criteria	National Curriculum Links						Teach Computing Taxonomy										Cross Curricular Links	Education for a Connected World
						1.1	1.2	1.3	1.4	1.5	1.6	AL	CM	CS	DD	DI	ET	IT	NW	PG	SS		
1	1	Computing systems and networks – Technology around us	1	-To identify technology	-I can explain how these technology examples help us - I can explain technology as something that helps us - I can locate examples of technology in the classroom				■	■	■			■				■					- Copyright and ownership - Health, well-being and lifestyle
1	1	Computing systems and networks – Technology around us	2	-To identify a computer and its main parts	-I can name the main parts of a computer - I can switch on and log into a computer - I can use a mouse to click and drag				■	■	■			■									- Copyright and ownership - Health, well-being and lifestyle
1	1	Computing systems and networks – Technology around us	3	-To use a mouse in different ways	-I can click and drag to make objects on a screen - I can use a mouse to create a picture - I can use a mouse to open a program				■	■	■			■			■						- Copyright and ownership - Health, well-being and lifestyle
1	1	Computing systems and networks – Technology around us	4	-To use a keyboard to type on a computer	-I can save my work to a file - I can say what a keyboard is for - I can type my name on a computer				■	■	■			■			■						- Copyright and ownership - Health, well-being and lifestyle
1	1	Computing systems and networks – Technology around us	5	-To use the keyboard to edit text	-I can delete letters - I can open my work from a file - I can use the arrow keys to move the cursor				■	■	■			■			■						- Copyright and ownership - Health, well-being and lifestyle
1	1	Computing systems and networks – Technology around us	6	-To create rules for using technology responsibly	-I can discuss how we benefit from these rules - I can give examples of some of these rules - I can identify rules to keep us safe and healthy when we are using technology in and beyond the home				■	■	■			■			■				■		- Copyright and ownership - Health, well-being and lifestyle
1	2	Creating media – Digital painting	1	-To describe what different freehand tools do	-I can draw lines on a screen and explain which tools I used - I can make marks on a screen and explain which tools I used - I can use the paint tools to draw a picture				■				■				■					Art and Design	
1	2	Creating media – Digital painting	2	-To use the shape tool and the line tools	-I can make marks with the square and line tools - I can use the shape and line tools effectively - I can use the shape and line tools to recreate the work of an artist				■				■				■					Art and Design	
1	2	Creating media – Digital painting	3	-To make careful choices when painting a digital picture	-I can choose appropriate shapes - I can create a picture in the style of an artist - I can make appropriate colour choices				■				■				■					Art and Design	
1	2	Creating media – Digital painting	4	-To explain why I chose the tools I used	-I can choose appropriate paint tools and colours to recreate the work of an artist - I can say which tools were helpful and why - I know that different paint tools do different jobs				■				■		■		■					Art and Design	
1	2	Creating media – Digital painting	5	-To use a computer on my own to paint a picture	-I can change the colour and brush sizes - I can make dots of colour on the page - I can use dots of colour to create a picture in the style of an artist on my own				■				■				■					Art and Design	
1	2	Creating media – Digital painting	6	-To compare painting a picture on a computer and on paper	-I can explain that pictures can be made in lots of different ways - I can say whether I prefer painting using a computer or using paper - I can spot the differences between painting on a computer and on paper				■				■		■		■					Art and Design	
1	3	Programming A – Moving a robot	1	-To explain what a given command will do	-I can match a command to an outcome - I can predict the outcome of a command on a device - I can run a command on a device				■	■		■										English – writing	
1	3	Programming A – Moving a robot	2	-To act out a given word	-I can follow an instruction - I can give directions - I can recall words that can be acted out				■	■		■						■				English – writing	
1	3	Programming A – Moving a robot	3	-To combine forwards and backwards commands to make a sequence	-I can compare forwards and backwards movements - I can predict the outcome of a sequence involving forwards and backwards commands - I can start a sequence from the same place				■	■									■			English – writing	
1	3	Programming A – Moving a robot	4	-To combine four direction commands to make sequences	-I can compare left and right turns - I can experiment with turn and move commands to move a robot - I can predict the outcome of a sequence involving up to four commands				■	■									■			English – writing	
1	3	Programming A – Moving a robot	5	-To plan a simple program	-I can choose the order of commands in a sequence - I can debug my program - I can explain what my program should do				■	■		■			■							English – writing	
1	3	Programming A – Moving a robot	6	-To find more than one solution to a problem	-I can identify several possible solutions - I can plan two programs - I can use two different programs to get to the same place				■	■		■										English – writing	
1	4	Data and information – Grouping data	1	-To label objects	-I can describe objects using labels - I can identify the label for a group of objects - I can match objects to groups				■		■					■							- Copyright and ownership
1	4	Data and information – Grouping data	2	-To identify that objects can be counted	-I can count a group of objects - I can count objects - I can group objects				■		■					■							- Copyright and ownership
1	4	Data and information – Grouping data	3	-To describe objects in different ways	-I can describe an object - I can describe a property of an object - I can find objects with similar properties				■		■					■							- Copyright and ownership
1	4	Data and information – Grouping data	4	-To count objects with the same properties	-I can count how many objects share a property - I can group objects in more than one way - I can group similar objects				■		■					■							- Copyright and ownership
1	4	Data and information – Grouping data	5	-To compare groups of objects	-I can choose how to group objects - I can describe groups of objects - I can record how many objects are in a group				■		■					■							- Copyright and ownership
1	4	Data and information – Grouping data	6	-To answer questions about groups of objects	-I can compare groups of objects - I can decide how to group objects to answer a question - I can record and share what I have found				■		■					■							- Copyright and ownership
1	5	Creating media – Digital writing	1	-To use a computer to write	-I can identify and find keys on a keyboard - I can open a word processor - I can recognise keys on a keyboard				■		■		■				■						- Privacy and security
1	5	Creating media – Digital writing	2	-To add and remove text on a computer	-I can enter text into a computer - I can use backspace to remove text - I can use letter, number, and space keys				■		■		■				■						- Privacy and security
1	5	Creating media – Digital writing	3	-To identify that the look of text can be changed on a computer	-I can explain what the keys that I have learnt about already do - I can identify the toolbar and use bold, italic, and underline - I can type capital letters				■		■		■				■						- Privacy and security
1	5	Creating media – Digital writing	4	-To make careful choices when changing text	-I can change the font - I can select all of the text by clicking and dragging - I can select a word by double-clicking				■		■		■				■						- Privacy and security
1	5	Creating media – Digital writing	5	-To explain why I used the tools that I chose	-I can decide if my changes have improved my writing - I can say what tool I used to change the text - I can use 'undo' to remove changes				■		■		■		■		■						- Privacy and security
1	5	Creating media – Digital writing	6	-To compare typing on a computer to writing on paper	-I can explain the differences between typing and writing - I can make changes to text on a computer - I can say why I prefer typing or writing				■		■		■				■						- Privacy and security
1	6	Programming B - Programming animations	1	-To choose a command for a given purpose	-I can compare different programming tools - I can find which commands to move a sprite - I can use commands to move a sprite				■	■	■									■			
1	6	Programming B - Programming animations	2	-To show that a series of commands can be joined together	-I can run my program - I can use a Start block in a program - I can use more than one block by joining them together				■	■	■									■			
1	6	Programming B - Programming animations	3	-To identify the effect of changing a value	-I can change the value - I can find blocks that have numbers - I can say what happens when I change a value				■	■	■									■			
1	6	Programming B - Programming animations	4	-To explain that each sprite has its own instructions	-I can add blocks to each of my sprites - I can delete a sprite - I can show that a project can include more than one sprite				■	■	■									■			
1	6	Programming B - Programming animations	5	-To design the parts of a project	-I can choose appropriate artwork for my project - I can create an algorithm for each sprite - I can decide how each sprite will move				■	■	■				■					■			
1	6	Programming B - Programming animations	6	-To use my algorithm to create a program	-I can add programming blocks based on my algorithm - I can test the programs I have created - I can use sprites that match my design				■	■	■				■					■			
2	1	Computing systems and networks – IT around us	1	-To recognise the uses and features of information technology	-I can describe some uses of computers - I can identify examples of computers - I can identify that a computer is a part of IT				■	■	■			■				■	■		■		- Health, well-being and lifestyle
2	1	Computing systems and networks – IT around us	2	-To identify the uses of information technology in the school	-I can identify examples of IT - I can identify that some IT can be used in more than one way - I can sort school IT by what it's used for				■	■	■			■				■	■				- Health, well-being and lifestyle
2	1	Computing systems and networks – IT around us	3	-To identify information technology beyond school	-I can find examples of information technology - I can sort IT by where it is found - I can talk about uses of information technology				■	■	■			■				■	■				- Health, well-being and lifestyle
2	1	Computing systems and networks – IT around us	4	-To explain how information technology helps us	-I can demonstrate how IT devices work together - I can recognise common types of technology - I can say why we use IT				■	■	■			■				■	■				- Health, well-being and lifestyle
2	1	Computing systems and networks – IT around us	5	-To explain how to use information technology safely	-I can list different uses of information technology - I can say how rules can help keep me safe - I can talk about different rules for using IT				■	■	■			■				■	■		■		- Health, well-being and lifestyle
2	1	Computing systems and networks – IT around us	6	-To recognise that choices are made when using information technology	-I can explain the need to use IT in different ways - I can identify the choices that I make when using IT - I can use IT for different types of activities				■	■	■			■				■	■		■		- Health, well-being and lifestyle
2	2	Creating media – Digital photography	1	-To use a digital device to take a photograph	-I can explain what I did to capture a digital photo - I can recognise what devices can be used to take photographs - I can talk about how to take a photograph				■	■	■		■	■								Art and design	- Self-image and identity
2	2	Creating media – Digital photography	2	-To make choices when taking a photograph	-I can explain the process of taking a good photograph - I can explain why a photo looks better in portrait or landscape format - I can take photos in both landscape and portrait format				■	■	■		■	■			■					Art and design	- Self-image and identity
2	2	Creating media – Digital photography	3	-To describe what makes a good photograph	-I can discuss how to take a good photograph - I can identify what is wrong with a photograph - I can improve a photograph by retaking it				■	■	■		■		■							Art and design	- Self-image and identity
2	2	Creating media – Digital photography	4	-To decide how photographs can be improved	-I can experiment with different light sources - I can explain why a picture may be unclear - I can explore the effect that light has on a photo				■	■	■		■		■		■					Art and design	- Self-image and identity
2	2	Creating media – Digital photography	5	-To use tools to change an image	-I can explain my choices - I can recognise that images can be changed - I can use a tool to achieve a desired effect				■	■	■		■				■					Art and design	- Self-image and identity
2	2	Creating media – Digital photography	6	-To recognise that photos can be changed	-I can apply a range of photography skills to capture a photo - I can identify which photos are real and which have been changed - I can recognise which photos have been changed				■	■	■		■				■					Art and design	- Self-image and identity
2	3	Programming A – Robot algorithms	1	-To describe a series of instructions as a sequence	-I can choose a series of words that can be enacted as a sequence - I can follow instructions given by someone else - I can give clear instructions				■	■		■										Music	

2	3	Programming A – Robot algorithms	2	-To explain what happens when we change the order of instructions	-I can show the difference in outcomes between two sequences that consist of the same commands - I can use an algorithm to program a sequence on a floor robot - I can use the same instructions to create different algorithms		Music	
2	3	Programming A – Robot algorithms	3	-To use logical reasoning to predict the outcome of a program	-I can compare my prediction to the program outcome - I can follow a sequence - I can predict the outcome of a sequence		Music	
2	3	Programming A – Robot algorithms	4	-To explain that programming projects can have code and artwork	-I can explain the choices I made for my mat design - I can identify different routes around my mat - I can test my mat to make sure that it is usable		Music	
2	3	Programming A – Robot algorithms	5	-To design an algorithm	-I can create an algorithm to meet my goal - I can explain what my algorithm should achieve - I can use my algorithm to create a program		Music	
2	3	Programming A – Robot algorithms	6	-To create and debug a program that I have written	-I can plan algorithms for different parts of a task - I can put together the different parts of my program - I can test and debug each part of the program		Music	
2	4	Data and information – Pictograms	1	-To recognise that we can count and compare objects using tally charts	-I can compare totals in a tally chart - I can record data in a tally chart - I can represent a tally count as a total		Maths	- Privacy and security
2	4	Data and information – Pictograms	2	-To recognise that objects can be represented as pictures	-I can enter data onto a computer - I can use a computer to view data in a different format - I can use pictograms to answer simple questions about objects		Maths	- Privacy and security
2	4	Data and information – Pictograms	3	-To create a pictogram	-I can explain what the pictogram shows - I can organise data in a tally chart - I can use a tally chart to create a pictogram		Maths	- Privacy and security
2	4	Data and information – Pictograms	4	-To select objects by attribute and make comparisons	-I can answer 'more than'/'less than' and 'most/least' questions about an attribute - I can create a pictogram to arrange objects by an attribute - I can tally objects using a common attribute		Maths	- Privacy and security
2	4	Data and information – Pictograms	5	-To recognise that people can be described by attributes	-I can choose a suitable attribute to compare people - I can collect the data I need - I can create a pictogram and draw conclusions from it		Maths	- Privacy and security
2	4	Data and information – Pictograms	6	-To explain that we can present information using a computer	-I can give simple examples of why information should not be shared - I can share what I have found out using a computer - I can use a computer program to present information in different ways		Maths	- Privacy and security
2	5	Creating media - Digital music	1	-To say how music can make us feel	-I can describe music using adjectives - I can identify simple differences in pieces of music - I can say what I do and don't like about a piece of music			- Copyright and ownership
2	5	Creating media - Digital music	2	-To identify that there are patterns in music	-I can create a rhythm pattern - I can explain that music is created and played by humans - I can play an instrument following a rhythm pattern			- Copyright and ownership
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			- Copyright and ownership
2	5	Creating media - Digital music	4	-To use a computer to create a musical pattern	-I can explain how my music can be played in different ways - I can identify that music is a sequence of notes - I can refine my musical pattern on a computer			- Copyright and ownership
2	5	Creating media - Digital music	5	-To create music for a purpose	-I can add a sequence of notes to my rhythm - I can create a rhythm which represents an animal I've chosen - I can create my animal's rhythm on a computer			- Copyright and ownership
2	5	Creating media - Digital music	6	-To review and refine our computer work	-I can explain how I changed my work - I can listen to music and describe how it makes me feel - I can review my work			- Copyright and ownership
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			