

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
What is a computer (CS)	<ul style="list-style-type: none"> Children recognise and use, the key parts of a computer selecting a digital device to fulfil a specific task. (CS) 	<ul style="list-style-type: none"> To identify and explain how examples of technology help us. To recognise that a computer is an example of technology. To recognise and explain the choice to use technology and rules when using it. 	<ul style="list-style-type: none"> To recognise different types of computers used in school. To identify that a computer is a part of information technology and how it benefits us. To recognise the features and choices made when using information technology. 	<ul style="list-style-type: none"> To explain how computer systems can change the way that we work. To identify how devices in a network are connected and explain how information is passed through multiple connections. To identify the benefits of computer networks. 	<ul style="list-style-type: none"> To describe how networks connect to other networks. To recognise that the World Wide Web is part of the internet because of the global interconnections of networks and how it can be used to share information. To explain how the content of the World Wide Web is created, owned and shared. 	<ul style="list-style-type: none"> To see that computers communicate with other devices (including other computers). To recognise that connections between computers allow us to access and share stored files. To explain that the internet lets people in different places collaborate and that this can be public or private. 	<ul style="list-style-type: none"> To recognise that there are a number of search engines. To explain why search engines create indexes, and that they are different for each search engine. To define 'communication' and discuss the opportunities that technology offers.
Programming & Algorithms (CS)	<ul style="list-style-type: none"> Follow and Input a short sequence of instructions to control a device. (P&A) 	<ul style="list-style-type: none"> To understand that a programme is a set of commands a computer can run. To recognise and explain, what a given command does and to run commands. To build a sequence of commands by combining them into a programme. 	<ul style="list-style-type: none"> To describe that a series of instructions is a sequence. To recall that a series of instructions can be issued before they are enacted. To use logical reasoning to predict the outcome of a program. 	<ul style="list-style-type: none"> To explain that a programs starts because of an input and that they include a sequence of commands that can affect a program's output. To identify that the sequence of a programme is a process. To identify that different sequences can achieve the same or different output. 	<ul style="list-style-type: none"> To explain that we can use a loop command in a program to repeat instructions as part of a sequence. To explain that in programming there are indefinite loops and count-controlled loops. To recognise that not all tools enable more than one process to be run at once. 	<ul style="list-style-type: none"> To explain that a condition-controlled loop will stop when a condition is met. To define, relate and outline, conditional statements used in computer programs. To explain the importance of instruction order in 'if...then...else...' statements. 	<ul style="list-style-type: none"> To define 'variable' as something that is changeable and identify examples of them. To identify that not only can a variable be updated but that it can hold numbers (integers) or letters (strings). To explain the importance of setting up a variable at the start of a program (initialisation)
Creating media (Information technology)	<ul style="list-style-type: none"> They will access content in a range of formats, e.g. image, video, audio and input a short sequence of instructions to control a device. (IT) 	<ul style="list-style-type: none"> To recognise that tools can be changed to produce different outcomes. To recognise that information can be stored, and shared in a variety of ways. To recognise that a keyboard is used to enter text into a computer. 	<ul style="list-style-type: none"> To recognise that photographs can be changed through editing. To recognise that a photograph is composed by choosing landscape or portrait and the focus of the picture by the photograph. To use a computer to create a piece of music for a purpose. 	<ul style="list-style-type: none"> To recognise that an animation is made up of a sequence of drawn or captured images. To understand the terms, 'composition', 'stage' and 'capture area'. To recognise how to convey information by combining text and images, considering the orientation, layout and place holders. 	<ul style="list-style-type: none"> To use a computer to (further) manipulate images by; retrieving, rotating, flipping, cropping, adjusting the colour, applying filters, adding effects, retouching, adding elements (border etc.) To use a device to record sound by pressing/tapping to record, locating the microphone on the device. To locate recorded audio, play back and select sections of audio to add in effects or delete. 	<ul style="list-style-type: none"> To recognise that digital devices can capture video either by the person operating the camera or by the device automatically (wildlife camera) To use recording devices and a computer to capture, playback and edit video to be saved and exported. To recognise that an image comprises of separate objects that can be layered, combined and modified to create the desired effect. To recognise that vector images can be scaled without impact on quality. 	<ul style="list-style-type: none"> To recognise that objects comprise of length, width and height (depth) and that they can be broken down in to a collection of 3D object. To recognise the similarities and difference between real-life 3D and virtual 3D. To recognise the relationship between HTML and visual display. To recognise components of a web page layout including a navigation path way and preview pages (different screens/devices).
Data & information (Information technology)		<ul style="list-style-type: none"> To identify that objects can be counted. To recognise that information can be presented. To recognise that information can be represented different ways. 	<ul style="list-style-type: none"> To explain that we can present information using a computer. To use a computer programme to present information in different ways. To suggest appropriate headings for a tally chart and pictograms. 	<ul style="list-style-type: none"> To identify the objects attributes needed to collect and separate relevant data. To decide what data needs to be collected to answer a specific question. To compare information shown in a pictogram with a branching data base. 	<ul style="list-style-type: none"> To identify that sensors are digital devices to collect data automatically. To recognise that a sensor can be used as an input device for data collection. To explain that data loggers capture 'data points' from sensors over time. 	<ul style="list-style-type: none"> To explain that a computer program can be used to organise data. To outline how ordering data allows us to answer some questions, whilst 'And' and 'or' can be used to refine data selections. To explain that computer programs can be used to compare data visually 	<ul style="list-style-type: none"> To explain that objects/artefacts can be described using data. To explain that formulas can be used to produce calculated data. To explain why data should be organised and choose suitable ways to represent data.
Evidence	<p><i>Discussions with key adults or children</i> <i>Tapestry observations</i> <i>Photos of experiences</i> <i>Written work/ drawings</i></p>						