



Computing

Clapham and Patching CofE Primary School

End of Year Expectations

	RECEPTION	YEAR 1	YEAR 2
Algorithms and Programs	<p>Children can 'reset' a programmable toy, such as a Bee Bot.</p> <p>They understand forwards, backwards and turns.</p> <p>They know how to give a series of single step instructions to control a programmable toy.</p>	<p>They know how to create a simple series of instructions - left and right.</p> <p>They know how to record their routes.</p> <p>They understand forwards, backwards, up and down.</p> <p>They know how to put more than two instructions together to control a programmable toy.</p> <p>They are beginning to plan and test a Bee-bot journey.</p>	<p>They know how to predict the outcomes of a set of instructions.</p> <p>They know how to use right angle turns.</p> <p>They know how to use the repeat commands.</p> <p>They know how to test and amend a set of instructions.</p> <p>They know how to write a simple program and test it.</p> <p>They know how to predict what the outcome of a simple program will be.</p>
Data Retrieving and Organising	<p>With help, they can capture an image on a digital camera.</p>	<p>They know how to capture images with a camera.</p> <p>They know how to print out a photograph from a camera with help.</p> <p>They know how to record a sound and play it back.</p> <p>They know how to enter information into a template to make a graph.</p> <p>They know how to talk about the results shown on a graph.</p>	<p>They know how to find information on a website.</p> <p>They know how to click links in a website.</p> <p>They know how to print a web page to use as a resource.</p> <p>They know how to experiment with text, pictures and animation to make a simple slide show.</p> <p>They know how to use the shape tools to draw.</p>
Communicating	<p>With help, they can use a keyboard to enter names, labels or short phrases.</p> <p>They know how to use simple brushes and flood fill tools to create pictures.</p>	<p>They recognise what an email address looks like.</p> <p>They have joined in sending a class email.</p> <p>They know how to use the @ key and type an email address.</p> <p>They know how to word process ideas using a keyboard.</p> <p>They know how to use the spacebar, back space, enter, shift and arrow keys.</p> <p>They know how to print out a page from the internet.</p>	<p>They know how to send and reply to messages sent by a safe email partner (within school).</p> <p>They know how to word process a piece of text.</p> <p>They know how to insert/delete a word using the mouse and arrow keys.</p> <p>They know how to highlight text to change its format (B, <u>U</u>, I).</p>
e-Safety	<p>They know only to be online if an adult is with them.</p> <p>They know what to do if they see something that upsets them.</p>	<p>They understand the different methods of communication (e.g. email, online forums etc).</p> <p>They know you should only open email from a known source.</p> <p>They know the difference between email and communication systems such as blogs and wikis.</p> <p>They know that websites sometimes include pop-ups that take them away from the main site.</p> <p>They know that bookmarking is a way to find safe sites again quickly.</p> <p>They are beginning to evaluate websites and know that everything on the internet is not true.</p> <p>They know that it is not always possible to copy some text and pictures from the internet.</p> <p>They know that personal information should not be shared online.</p>	



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	YEAR 3	YEAR 4
Algorithms and Programs	<p>They know how to experiment with variables to control models.</p> <p>They know how to use 90 degree and 45 degree turns. They know how to give an on-screen robot directional instructions.</p> <p>They know how to draw a square, rectangle and other regular shapes on screen, using commands.</p> <p>They know how to write more complex programs.</p>	<p>They know how to use repeat instructions to draw regular shapes on screen, using commands.</p> <p>They know how to experiment with variables to control models.</p> <p>They know how to make turns specifying the degrees. They know how to give an on-screen robot specific directional instructions that takes them from x to y. They know how to make accurate predictions about the outcome of a program they have written.</p>
Data Retrieving and Organising	<p>They know how to review images on a camera and delete unwanted images.</p> <p>They have experienced downloading images from a camera into files on the computer.</p> <p>They know how to use photo editing software to crop photos and add effects.</p> <p>They know how to manipulate sound when using simple recording story boarding.</p>	<p>They know how to capture images using webcams, screen capture, scanning, visualiser and internet.</p> <p>They know how to choose images and download into a file.</p> <p>They know how to download images from the camera into files on the computer.</p> <p>They know how to copy graphics from a range of sources and paste into a desktop publishing program.</p>
Communicating	<p>They know how to use the email address book. They know how to open and send an attachment.</p>	<p>They appreciate the benefits of ICT to send messages and to communicate.</p> <p>They know how to use the automatic spell checker to edit spellings.</p>
Using the Internet	<p>They know how to find relevant information by browsing a menu.</p> <p>They know how to search for an image, copy and paste it into a document.</p> <p>They know how to use 'Save picture as' to save an image to the computer.</p> <p>They know how to copy and paste text into a document. They are beginning to use note making skills to decide what text to copy.</p>	<p>They know how to use a search engine to find a specific website.</p> <p>They know how to use note-taking skills to decide which text to copy and paste into a document.</p> <p>They know how to use tabbed browsing to open two or more web pages at the same time.</p> <p>They know how to open a link to a new window.</p> <p>They know how to open a document (pdf) and view it.</p>
Databases	<p>They know how to input data into a prepared database. They know how to sort and search a database to answer simple questions.</p> <p>They know how to use a branching database.</p>	<p>They know how to input data into a prepared database. They know how to sort and search a database to answer simple questions.</p> <p>They recognise what a spread sheet is.</p> <p>They know how to use the terms cells, rows and columns. They know how to enter data, highlight it and make bar charts.</p>
Presentation	<p>They know how to create a presentation that moves from slide to slide and is aimed at a specific audience.</p> <p>They know how to combine text, images and sounds and show awareness of audience.</p> <p>They know how to manipulate text, underline text, centre text, change font and size and save text to a folder.</p>	<p>They know how to create a lengthy presentation that moves from slide to slide and is aimed at a specific audience.</p> <p>They know how to insert sound recordings into a multimedia presentation.</p> <p>They know how to manipulate text, underline text, centre text, change font and size and save text to a folder.</p>



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e-Safety	<p>They understand the need for rules to keep them safe when exchanging learning and ideas online.</p> <p>They recognise that information on the internet may not be accurate or reliable and may be used for boas, manipulation or persuasion.</p> <p>They understand that the internet contains fact, fiction and opinion and begin to distinguish between them. They use strategies to verify information, e.g. cross-checking.</p> <p>Understand the need for caution when using an internet search for images and what to do if they find an unsuitable image. They understand that copyright exists on most digital images, video and recorded music.</p> <p>They understand the need to keep personal information and passwords private.</p> <p>They understand that if they make personal information available online it may be seen and used by others. They know how to respond if asked for personal information or feel unsafe about content of a message.</p> <p>They recognise that cyber bullying is unacceptable and will be sanctioned in line with the school's policy. They know how to report an incident of cyber bullying.</p> <p>They know difference between online communication tools used in school and those used at home. They understand the need to develop an alias for some public online use.</p> <p>They understand that the outcome of internet searches at home may be different than at school.</p>
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	YEAR 5	YEAR 6
Algorithms and Programs	<p>They know how to combine sequences of instructions and procedures to turn devices on or off.</p> <p>They understand input and output.</p> <p>They know how to use an ICT program to control an external device that is electrical and/or mechanical.</p> <p>They know how to use ICT to measure sound or light or temperate using sensors.</p> <p>They know how to explore 'What if' questions by playing adventure or quest games.</p> <p>They know how to write programs that have sequences & repetitions.</p>	<p>They know how to explain how an algorithm works.</p> <p>They know how to detect errors in a program and correct them. They know how to use an ICT program to control a number of events for an external device.</p> <p>They know how to use ICT to measure sound, light or temperature using sensors and interpret the data.</p> <p>They know how to explore 'what if' questions by planning different scenarios for controlled devices.</p> <p>They know how to use input from sensors to trigger events. They know how to check and refine a series of instructions.</p>
Data Retrieving and Organising	<p>They know how to listen to streaming audio such as online radio.</p> <p>They know how to download and listen to podcasts. They know how to produce and upload a podcast. They know how to manipulate sounds using Audacity. They know how to select music from open sources and incorporate it into multimedia presentations.</p> <p>They know how to work on simple film editing.</p>	<p>They know how to explore menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.). They know how to add special effects to alter the appearance of a graphic.</p> <p>They know how to 'save as' gif or jpeg. wherever possible to make the file size smaller (for emailing or downloading).</p> <p>They know how to make an information poster using their graphics skills to good effect.</p>
Communicating	<p>They know how to use instant messaging to communicate with class members.</p> <p>They know how to conduct a video chat with someone elsewhere in the school or in another school.</p> <p>They know how to use the word count tool to check the length of a document.</p> <p>They know how to use bullets and numbering tools.</p>	<p>They know how to confidently choose the correct page set up option when creating a document.</p> <p>They know how to confidently use text formatting tools, including heading and body text.</p> <p>They know how to use the 'hanging indent' tool to help format work where appropriate (e.g. a play script.)</p>
Using the Internet	<p>They know how to use a search engine using keyword searches. They know how to compare the results of different searches.</p> <p>They know how to decide which sections are appropriate to copy and paste from at least two web pages.</p> <p>They know how to save stored information following simple lines of enquiry.</p>	<p>They know how to contribute to discussions online.</p> <p>They know how to use a search engine using keyword searches. They know how to use complex searches using such as '+' 'OR' "Find the phrase in inverted commas".</p>



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	They know how to download a document and save it to the computer.	
Databases	<p>They know how to create a formula in a spreadsheet and then check for accuracy and plausibility.</p> <p>They know how to search databases for information using symbols such as = > or <.</p> <p>They know how to create databases planning the fields, rows & columns.</p> <p>They know how to create graphs and tables to be copied and pasted into other documents.</p>	<p>They know how to collect live data using data logging equipment.</p> <p>They know how to identify data error, patterns and sequences. They know how to use the formulae bar to explore mathematical scenarios.</p> <p>They know how to create their own database and present information from it.</p>
Presentation	<p>They know how to use a range of presentation applications. They consider audience when editing a simple film.</p> <p>They know how to prepare and then present a simple film. They know how to use ICT to record sounds and capture both still and video images.</p> <p>They know how to make a home page for a website that contains links to other pages.</p>	<p>They know how to present a film for a specific audience and then adapt same film for a different audience.</p> <p>They know how to create a sophisticated multimedia presentation.</p>
e-Safety	<p>They discuss the positive and negative impacts of the use of ICT in their own lives and those of their peers and family. They understand the potential risk of providing personal information online.</p> <p>They recognise why people may publish content that is not accurate and understand the need to be critical evaluators of content. They understand that some websites and/or pop-ups have commercial interests that affect the way the information is presented. They recognise the potential risks of using internet communication tools and understand how to minimise those risks (including scams and phishing).</p> <p>They understand that some material on the internet is copyrighted and may not be copied or downloaded. They understand that some messages may be malicious and know how to deal with this.</p> <p>They understand that online environments have security settings, which can be altered, to protect the user. They understand the benefits of developing a 'nickname' for online use.</p> <p>They understand that some malicious adults may use various techniques to make contact and elicit personal information.</p>	

