Computing Progression Overview – Knowledge, Skills & Understanding

Algorithms and Programs					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Can they create a simple series of instructions - left and right? Can they record their routes? Do they understand forwards, backwards, up and down? Can they put two instructions together to control a programmable toy? Can they begin to plan and test a Bee-bot journey?	Can they predict the outcomes of a set of instructions? Can they use right angle turns? Can they use the repeat commands? Can they test and amend a set of instructions? Can they write a simple program and test it? Can they predict what the outcome of a simple program will be?	Can they experiment with variables to control models? Can they use 90 degree and 45 degree turns? Can they give an on-screen robot directional instructions? Can they draw a square, rectangle and other regular shapes on screen, using commands? Can they write more complex programs?	Can they use repeat instructions to draw regular shapes on screen, using commands? Can they experiment with variables to control models? Can they make turns specifying the degrees? Can they give an on-screen robot specific directional instructions that takes them from x to y? Can they make accurate predictions about the outcome of a program they have written?	Can they combine sequences of instructions and procedures to turn devices on or off? Do they understand input and output? Can they use an ICT program to control an external device that is electrical and/or mechanical? Can they use ICT to measure sound or light or temperate using sensors? Can they explore 'What is' questions by playing adventure or quest games? Can they write programs that have sequences and repetitions?	Can they explain how an algorithm works? Can they detect errors in a program and correct them? Can they use an ICT program to control a number of events for an external device? Can they use ICT to measure sound, light or temperature using sensors and interpret the data? Can they explore 'what if' questions by planning different scenarios for controlled devices? Can they use input from sensors to trigger events? Can they check and refine a series of instructions?

Data Retrieving and Organising					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Can they capture images with a camera? Can they print out a photograph from a camera with help? Can they record a sound and play it back? Can they enter information into a template to make a graph? Can they talk about the results shown on a graph?	Can they find information on a website? Can they click links in a website? Can they print a web page to use as a resource? Can they experiment with text, pictures and animation to make a simple slide show? Can they use the shape tools to draw?	Can they review images on a camera and delete unwanted images? Have they experienced downloading images from a camera into files on the computer? Can they use photo editing software to crop photos and add effects? Can they manipulate sound when using simple recording story boarding?	Can they capture images using webcams, screen capture, scanning, visualiser and internet? Can they choose images and download into a file? Can they download images from the camera into files on the computer? Can they copy graphics from a range of sources and paste into a desktop publishing program?	Can they listen to streaming audio such as online radio? Can they download and listen to podcasts? Can they produce and upload a podcast? Can they manipulate sounds using Audacity? Can they select music from open sources and incorporate it into multimedia presentations? Can they work on simple film editing?	Can they explore the menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.)? Can they add special effects to alter the appearance of a graphic? Can they 'save as' gif or i peg. wherever possible to make the file size smaller (for emailing or downloading)? Can they make an information poster using their graphics skills to good effect?
Communicating					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Do they recognise what an email address looks like? Have they joined in sending a class email? Can they use the @ key and type an email address? Can they word process ideas using a keyboard? Can they use the spacebar, back space, enter, shift and arrow keys? Can they print out a page from the internet?	Can they send and reply to messages sent by a safe email partner (within school)? Can they word process a piece of text? Can they insert/delete a word using the mouse and arrow keys? Can they highlight text to change its format (B, U, I)?	Can they use the email address book? Can they open and send an attachment?	Do they appreciate the benefits of ICT to send messages and to communicate? Can they use the automatic spell checker to edit spellings?	Can they use instant messaging to communicate with class members? Can they conduct a video chat with someone elsewhere in the school or in another school? Can they use the word count tool to check the length of a document? Can they use bullets and numbering tools?	Can they confidently choose the correct page set up option when creating a document? Can they confidently use text formatting tools, including heading and body text? Can they use the 'hanging indent' tool to help format work where appropriate (e.g. a play script)?

Using the Internet					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
		Can they find relevant information by browsing a menu? Can they search for an image, copy and paste it into a document? Can they use 'Save picture as' to save an image to the computer? Can they copy and paste text into a document? Do they begin to use note making skills to decide what text to copy?	Can they use a search engine to find a specific website? Can they use note-taking skills to decide which text to copy and paste into a document? Can they use tabbed browsing to open two or more web pages at the same time? Can they open a link to a new window? Can they open a document (pdf) and view it?	Can they use a search engine using keyword searches? Can they compare the results of different searches? Can they decide which sections are appropriate to copy and paste from at least two web pages? Can they save stored information following simple lines of enquiry? Can they download a document and save it to the computer?	Can they contribute to discussions online? Can they use a search engine using keyword searches? Can they use complex searches using such as '+' 'OR' "Find the phrase in inverted commas"?

Databases					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
		Can they input data into a prepared database? Can they sort and search a database to answer simple questions? Can they use a branching database?	Can they input data into a prepared database? Can they sort and search a database to answer simple questions? Do they recognise what a spread sheet is? Can they use the terms cells, rows and columns? Can they enter data, highlight it and make bar charts?	Can they create a formula in a spreadsheet and then check for accuracy and plausibility? Can they search databases for information using symbols such as = > or <? Can they create databases planning the fields, rows and columns? Can they create graphs and tables to be copied and pasted into other documents?	Can they collect live data using data logging equipment? Can they identify data error, patterns and sequences? Can they use the formulae bar to explore mathematical scenarios? Can they create their own database and present information from it?

Presentation					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
		Can they create a presentation that moves from slide to slide and is aimed at a specific audience? Can they combine text, images and sounds and show awareness of audience? Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder?	Can they create a lengthy presentation that moves from slide to slide and is aimed at a specific audience? Can they insert sound recordings into a multimedia presentation? Do they know how to manipulate text, underline text, centre text, change font and size and save text to a folder?	Can they use a range of presentation applications? Do they consider audience when editing a simple film? Do they know how to prepare and then present a simple film? Can they use ICT to record sounds and capture both still and video images? Can they make a home page for a website that contains links to other pages? Can they capture sounds, images and video?	Can they present a film for a specific audience and then adapt same film for a different audience? Can they create a sophisticated multimedia presentation?