Progression in Computing

	Year 1	Year 2	Year 3/4	Year 4/5	Year 5/6
Text and Multimedia	Work with others and with support to contribute to a digital class resource which includes text, graphic and sound.	· Generate their own work, (with help where appropriate with multimedia) combining text, graphics and sound. Save and retrieve and edit their work.	· Record and present information integrating a range of appropriate media combining text and graphics in printable form and sound and video for on-screen presentations which include hyperlinks. Begin to show an awareness of the intended audience and seek feed-back.	· Use advanced tools in word processing / DTP software such as tabs, appropriate text formatting, line spacing etc appropriately to create quality presentations appropriate for a known audience.	· Multimedia work shows restrained use of effects that help to convey meaning rather than impress.
Digital Images (photos, paint, animation)	Use a range of simple tools in a paint package / image manipulation software to create / modify a picture.	· Use a range of tools in a paint package / image manipulation software to create / modify a picture to communicate an idea. · Create a simple animation to tell a story.	· Manipulate digital images using a range of tools in appropriate software to convey a specific mood or idea.	· Make a short film / animation from images (still and / or moving) that they have sourced, captured or created.	· Use images that they have sourced / captured / manipulated as part of a bigger project (eg presentation or document).
Sound and music (inc sound recorders)	Chose suitable sounds from a bank to express their ideas. Record short speech.	· Compose music from icons. · Produce a simple presentation incorporating sounds the children have captured, or created.	· Create a simple podcast, selecting and importing already existing music and sound effects as well as recording their own.	· Create multiple track compositions that contain a variety of sounds.	· Create and share more sophisticated podcasts and consider the effect that their podcasts will have on the audience.
Electronic Communication	Contribute ideas to a class email to another class / school etc.	· Work collaboratively by email to share and request information of another class or story character.	· Begin to understand the need to abide by school e-safety rules.	· Share ICT work they have done electronically by email, VLE, or uploading to authorised sites. · Where possible seek and respond to feedback.	· Abide by school rules for e-safety.
Research and E Safety	As a class exercise children explore information from a variety of sources (electronic, paper based, observations of the world around them, etc.). · They show an awareness of different forms of information	· Children use a search engine to find specific relevant information to use in a presentation for a topic. · They save and retrieve their work. an index, menu, hyperlinks as	· Using another curriculum area as a starting point, children ask their own questions then use ICT sources to find answers, making use of search engines, · They show an understanding that not all appropriate. Children use the information or resources they have found. · Children talk about using ICT to find information / resources noting any frustrations and showing an emerging understanding of internet safety.	· Make use of copy and paste, beginning to understand the purpose of copyright regulations and the need to repurpose information for a particular audience. topic. information on the internet is accurate. · Develop a growing awareness of how to stay safe when using the internet (in school and at home) and that they abide by the school's internet safety policy.	· Independently and with due regard for safety, search the internet using a variety of techniques to find a range of information and resources on a specific · Use appropriate methods to validate information and check for bias and accuracy. · Repurpose and make appropriate use of selected resources for a given audiences, acknowledging material used where appropriate.
Control (algorithms)	Control simple everyday devices to make them produce different outcomes.	· Control a device, on and off screen, making predictions about the effect their programming will have. · Children can plan ahead.	· Children are able to type a short sequence of instructions and to plan ahead when programming devices on and off screen.	· Engage in Logo based problem solving activities that require children to write procedures etc. and to predict, test and modify. · Use control software to control devices (using output commands) or to simulate this on screen. Predict, test and refine their programming.	· Independently create sequences of commands to control devices in response to sensing (i.e. use inputs as well as outputs). · Design, build, test, evaluate and modify the system; ensuring that it is fit for purpose.

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· As a class or individually with support, children use a simple pictogram or painting program to develop simple graphical awareness / one to one correspondence.	· Use a graphing package to collect, organise and classify data, selecting appropriate tools to create a graph and answer questions. · Enter information into a simple branching database, database or word processor and use it to answer questions. · They save, retrieve and edit their work.	· Children use a simple database (the structure of which has been set up for them) to enter and save and save information on a given subject. · They follow straight forward lines of enquiry to search their data for their own purposes. · They talk about their experiences of using ICT to process data compared with other methods.	· Children work as a class or group to create a data collection sheet and use it to setup a straight forward database to answer questions. · Enter information and interrogate it (by searching, sorting, graphing etc). · Begin to reflect on how useful the collected data and their interrogation was and whether or not their questions were answered.	· Independently solve a problem by planning and carrying out data collection, by organising and analysing data involving complex searches using a database, and by drawing conclusions and presenting findings. · The need for accuracy is demonstrated and strategies for spotting implausible data are evident. · Children should be able to talk about issues relating to data protection and the need for data security in the world at large (eg health, police databases).
· Make simple choices to control a simple simulation program.	· Children are able to play an adventure game and use a simple simulation, making choices and observing the results. · Their conversation shows they understand that computers are good at replicating real life events and allowing them to explore contexts that are otherwise not possible.	· Use models and simulations to find things out and solve problems. Recognise that simulations are useful in widening experience beyond the classroom. · Make simple use of a spreadsheet to store data and produce graphs.	· Set up and use a spreadsheet model to explore patterns and relationships. Make predictions. · Know how to enter simple formulae to assist this process.	· Set up and use their own spreadsheet, which contains formulae to investigate mathematical models. Ask "what if …" questions and change variable in their model. · Understand the need for accuracy when creating formulae and check regularly for mistakes, by questioning results. · Relate their use of spreadsheets to model situations to the wider world.
		· Begin to use a data logger to sense physical data (sound, light, temperature).	· Use a data logger confidently, connected to the computer or remotely, to capture continuous or intermittent data readings. · Interpret the results and use these in their investigations. · Realise the advantages of using ICT to collect data that might otherwise be problematic.	· Children are able to identify their own opportunities for data logging and carry out their own experiments. · They check and question results and are able to spot trends in data and identify when problems may have occurred.
· Show an awareness of the range of devices and tools they encounter in everyday life	· Show an awareness of a range of inputs to a computer (IWB, mouse touch screen, microphone, keyboard, etc)	· Begin to show discernment in their use of computing devices and tools for a particular purpose and explain why their choice was made.	· Make choices about the devices and tools they use for specific purposes and explain them in relation to the context. · Begin to show an awareness of specific tools used in working life.	· Evaluate the tools available to them including any that are unfamiliar or new and use them to solve problems. · Demonstrate an awareness of the appropriateness of outcomes depending on choices regarding tools and devices.
· Show an awareness that what they create on a computer or tablet device can be shown to others via another device (e.g. printer, projector, Apple TV)	· Begin to show an awareness that computers can be linked to share resources	· Show an understanding that their password is the key to accessing a personalised set of resources and files (e.g. My Documents). · Show an awareness of where passwords are critical in everyday use (e.g. parents accessing bank details)	· Show an understanding of the school network and how it links computers to resources in school and beyond. · Compare this with other networks they may encounter at home or in the wider world (e.g. banks)	· Show an understanding of how filtering and monitoring tools affect their use of the school network and Internet and compare this with their experience of access outside school.
	· Use websites and demonstrate an awareness of how to manage their journey around them (e.g. using the back/forward button, hyperlinks)	· Show an awareness that not all the resources/tools they use are resident on the device they are using. · Begin to show an understanding of URLs.	· Perform a search using different search engines and check the results against each other, explaining why they might be different. · Show an awareness of the need for accuracy in spelling and syntax to search effectively.	· Use collaborative tools and e-mail showing a sensitivity for this type of remote collaboration and communication