Computing Progression

	Reception	Year1	Year 2	Year 3	Year 4	Year 5	Year 6
Basic Computer Skills	• Turn on/off digital equipment.	• Use a mouse/mouse pad • Open and close programmes.	• Log on and off a computer. • Save work. • Print work.	• Find and open previously saved work. • Create folders to store digital documents.	• Organise folders to store digital documents.	Consolidation of basic skills.	Consolidation of basic skills.
Touch Typing	• Use the keyboard to enter letter strings	• To type upper and lower case letters	• To touch type 10 words per minute	• To touch type 10 words per minute	• To touch type 15 words per minute	To touch type 15 words per minute	• To touch type 20 words per minute
Text and Multimedia		• Save work in a specific area • Drag and drop objects on a screen. • Work with others and with support to contribute to a digital class resource which includes text, graphic and sound.	• Save and retrieve and edit their work. • Change font size and colour. • Use copy and paste. • Generate their own work, (with help where appropriate with multimedia) combining text, graphics and sound.	• 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.	• Consolidate
Digital Images (photos, paint, animation)	• Interact and explore their environment using a range of multimedia equipment.	• Use different tools in paint/draw/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	• Take screen shots on iPads. • Manipulate digital images using a range of tools in appropriate	• Make a short film / animation from images (still and / or moving) that they have	• Make a short film / animation from images (still and / or moving) that they have	• Use images that they have sourced / captured / manipulated as part of a bigger project (eg

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	• With help, play back captured still or moving images, becoming familiar with the control buttons. • Use programmes that allow children to select objects and animate them.		communicate an idea. • Create a simple animation to tell a story. • Record a video/take a picture on an iPad/recording device.	software to convey a specific mood or idea.	sourced, captured or created.	sourced, captured or created, combining text and audio.	presentation or document).
Sound and Music (Inc. sound recorders)	• Explore ways of listening to sounds using simple programmes and devices. • Explore ways of making and listening to sounds using simple programmes and devices. • With help, use buttons to play back sounds on a computer and a sound player.	• Chose suitable sounds from a bank to express their ideas. • Record short speech.	• Record sounds on an iPad/recording device. • 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 a simple podcast, selecting, importing and editing 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.
Handling Information (databases and graphs)	• Collect information using digital devices. • Begin to sort, classify or group various objects	• As a class or individually with support, children use a simple pictogram or painting program to develop simple graphical awareness	• Use a graphing package to collect, organise and classify data, selecting appropriate tools to create a graph	• Children use a simple database (the structure of which has been set up for them) to enter and save	• Children work as a class or group to create a data collection sheet and use it to setup a straight forward	• Enter information and interrogate it (by searching, sorting, graphing etc).	• Independently solve a problem by planning and carrying out data collection, by organising and analysing data

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	progressing from practical activities to the use of ICT, e.g., practically sorting fruit into colours, types or shapes, and then on-screen. • Use ICT to sort and sequence objects on a screen or interactive whiteboard. • Produce simple pictograms with help.	/ one to one correspondence.	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.	information on a given subject. • They follow straight forward lines of enquiry to search their data. • They talk about their experiences of using ICT to process data compared with other methods.	database to answer questions. • 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.	• Begin to reflect on how useful the collected data and their interrogation was and whether or not their questions were answered.	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).
Modelling and simulations (spreadsheets, adventure games and simulations)	• Explore simple simulations and find out what happens if.	• 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	• 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	• Use models and simulations to find things out and solve problems. Recognise that simulations are useful in widening experience beyond the classroom. • Create, use and manipulate a	• 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

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			replicating real life events and allowing them to explore contexts that are otherwise not possible.	to store data and produce graphs.	spreadsheet (editing cells) • Explore suitability of charts and graphs; making sure they are clearly labelled.		accuracy when creating formulae and check regularly for mistakes, by questioning results. • Relate their use of spreadsheets to model situations to the wider world.
Data Logging (science and maths)	• Be aware that digital devices e.g., thermometers, metal detectors, and sound monitors can be used to show external changes	• Data handling online games/software to explore different charts and diagrams.	• Data handling online games/software to explore and create different charts and diagrams.	• Begin to use a data logger to sense physical data (light)	• Begin to use a data logger to sense physical data (sound, 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.
Electronic Communications		• 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 how we communicate and share content online	• 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.	• Abide by school rules for e-safety.

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				safely and respectfully.		• Where possible seek and respond to feedback.	
Research and E-Safety	• Use a shortcut such as an icon on the desktop to navigate to a specific website. • Explore a teacher-selected website to find a desired page, using hyperlinks and navigation buttons.	• 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.	• Using another curriculum area as a starting point, children use teacher directed questions and ICT sources to find answers, making use of different search engines and evaluating results. 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.	• 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, website indexes, menus, hyperlinks as 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. • They show an understanding that not all 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 topic. • 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.
Understanding Technologies (individual technologies)	• Explore toys that simulate control devices e.g., traffic lights, scanner, microwave,	• 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,	• Understand the benefits of computing devices and tools over others.	• Begin to show discernment in their use of computing devices and tools for a	• Make choices about the devices and tools they use for specific purposes and	• Evaluate the tools available to them including any that are unfamiliar or

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	cash tills, with the intention of finding out how it works.		microphone, keyboard, etc).		particular purpose and explain why their choice was made.	explain them in relation to the context. • Begin to show an awareness of specific tools used in working life.	new and use them to solve problems. • Demonstrate an awareness of the appropriateness of outcomes depending on choices regarding tools and devices.
Understand Technologies (networks)		• 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.	• Understand how an individual computer physically links to a network.	• 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.
Understanding Technologies (the internet)	• Use a shortcut such as an icon on the desktop to navigate to a specific website. • Explore a teacher-selected website to find a desired page,	• Use text to search for a website to navigate to.	• Begin to understand what the internet is. • Use websites and demonstrate an awareness of how to manage their journey around them (e.g. using the back/forward	• Show an awareness that not all the resources/tools they use are resident on the device they are using. • Understand how the internet works.	• 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.	• Use collaborative tools and e-mail showing a sensitivity for this type of remote collaboration and communication.

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	using hyperlinks and navigation buttons.		button, hyperlinks).			• Show an awareness of the need for accuracy in spelling and syntax to search effectively.	
Control (algorithms)	• Explore the commands needed to control a range of electronic toys. • Use a variety of electronic toys in play situations, e.g., dance mats, Bee-bots, and remote control toys, using basic directional language.	• Understand sequence and algorithms. • Control simple everyday devices to make them produce different outcomes (sequence instructions (commands)).	• Control a device, on and off screen, making predictions about the effect their programming will have. • Sequence code blocks with loops (repetition). • Children can plan ahead. • Find errors in a given program (debug).	• Children are able to type a short sequence of instructions and to plan ahead when programming devices on and off screen. • Find errors in a program (debug).	• Understand how to program inputs with loops. Use conditions and sensing for interactions. • Write a program with audio inputs and outputs • Find and fix errors in a variety of programs (debug).	• 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.