

Computing Progression Ladder

	Mathematics Communication and Language Physical Development						
	Nursery Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Digital Literacy	I can : Use a range of devices to record information in a range of formats ie text, image, sound. Interact with multimedia software. Make marks on a digital device to communicate their ideas i.e. art package, IWB, painting app. Use a shortcut to access a website. Explore a website. Collect and sort information using ICT. Produce a simple pictogram	I can : Follow age-appropriate links provided by the teacher to research information. Understand the appropriate and/or relevant vocabulary according to equipment available (e.g. screen, keyboard, mouse, microphone, headphones, iPad	I can : Develop awareness of keyboard layout and use of a mouse Use navigation skills to access appropriate parts of a website Begin to use an appropriate search engine supported by an adult Begin to save and retrieve pictures and text	I can : Know that ICT enables access to a wider range of information & tools to help find specific information quickly Produce work using a computer, using more advanced features of programs and tools. Work collaboratively to create documents, including presentations. Use desk top publishing tools effectively and understand the differences between a word processor and desk top publisher. Understand the	I can : Collaborate to create a website, giving thought to its audience and including links, images, embedded media and documents. Understand that evaluation and improvement is a vital part of a design process and ICT allows changes to be made quickly and efficiently. I can continue to use technology, including spreadsheets to create graphs and present data in different ways. Design and create a basic database, including using basic data validation. Use a database to answer questions by constructing queries.	I can : Create websites for a specific purpose and improve these sites. Use technology to present their work, showing an increasing degree of skill and using advanced features of software and tools, (e.g. using non-linear presentation tools such as Prezi). Select tools which they can use to help them achieve a specific aim and justify these choices to others. I can continue to use, search, enter data into and create their own databases.	I can : Use technology to present their work, showing an increasing degree of skill and using advanced features of software and tools, (e.g. using non-linear presentation tools such as Prezi). Select tools which they can use to help them achieve a specific aim and justify these choices to others. Understand the importance of evaluation and adaptation of individual

				basic structure of a database. Add data to a pre-made database. Use the data in a pre-made database to generate graphs and charts. Use technology to create graphs and charts		I can continue to use technology, including spreadsheets to create graphs and present data in different ways.	features to enhance the overall product. I can continue to use, search, enter data into and create their own databases. Use spreadsheets to create graphs and present data in different ways. Design, construct, evaluate and modify simple models i.e. enter data, enter formulae, copy cells and use simple formatting in a spreadsheet.
Computing	I can : Use an art package to produce a picture on screen. Operate basic electronic equipment. Control a programmable toy.	I can : Use a digital camera Create a story board detailing a sequence Give and following instructions Create a photo story	I can : Understand the purpose of a range of different technology, e.g. easi-speak microphones, talking tins, tablets, desktop computers, laptops, microphones, cameras etc.	I can : Develop an understanding of technology works and how computers process instructions and commands. Create, edit and refine more complex sequences of	I can : Understand that ICT allows for situations to be modelled which it would be impractical to try out in real life and investigate the effect of changing variables in these simulations. Use software to model	I can : Develop understanding of how technology works; how computers process instructions and commands, including the use of coding	I can : Develop their understanding of how technology works and how computers process instructions and commands, including the

		I can give instructions to my friend to undertake		instructions for a variety of programmable devices. Use a computer to create basic applications, investigating how different variables can be changed and the effect this has. Use a range of simulations to represent real life situations. Use simulations to make and test predictions	3D objects made up of cuboids. Develop further their understanding of how technology works and how computers process instructions and commands. Use templates on a computer to create a game, which can be controlled by external inputs, changing parameters and algorithms and investigating the effect this has on the response	languages. Explore ways in which software can be planned. Use assisted programming software to create basic software which interacts with external controllers and elements on screen, creating algorithms and using logic and calculations. Investigate the effect of changing variables in simulations. Know that simulations are often guided by hidden rules. use software to model 3D objects.	use of coding languages. Use more complex programming software which interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations. Control an on screen icon using text based programming, including writing complex written algorithms which involve sensors. Deconstruct and Investigate the effect of changing variables in simulations. Know that simulations are often guided by hidden rules. Use software to
--	--	---	--	--	---	---	--

							model 3D objects, working to a scale.
E-Safety and use of the Internet	Tell an adult if they see something on a digital device they don't like. Know not to give out any information about themselves. Know that care need is needed when using technology.	I can understand the concepts: People you don't know are strangers Treat people appropriately Some information is personal Always tell a grown up if you see something that makes you feel uncomfortable	I can are aware that: People you don't know are strangers and are not always who they say they are They use appropriate language and treat people well on computers Some information is personal and needs to be private Always tell a grown up if they see something that makes them feel uncomfortable	I can : Follow a simple search to find specific information from a web site. Find and use appropriate information Identify how different web pages are organised e.g. graphics, hyperlinks, text. Navigate a web page to locate specific information Understand a website has a unique address. Understand that Cloud based tools can allow multiple people to contribute to shared documents and sites	I can : Understand and use a small range of web tools. Understand how e-mails work and be able to send an email, including choosing a suitable subject and entering addresses in the 'to', 'cc' and 'bcc' fields. Understand & evaluate the dynamics of different search engines. Skim read and sift information to check its relevance and modify search strategies. Understand that the information they use needs to be appropriate for the audience they are writing for, e.g. when copying and pasting difficult language. Recognise that anyone can author on the	I can : Use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data. Save and use pictures, text and sound and be able to import into a document for presentation (ref. multimedia presentation) Recognise that the Internet may contain material that is irrelevant, bias, implausible and inappropriate. Understand issues of copyright and how they apply to their own work. Share and exchange their	I can : Create websites for a specific purpose and improve these sites. I can collaborate on a project using a range of web tools to support their work- including, but not limited to , google docs / sites / wikis. Be able to respond to e-mails (e-safety). Talk about the different forms of electronic communication and web tools and discuss appropriateness of using different tools in different contexts and their advantages and

					Internet and sometimes authors can produce content which is offensive, rude and upsetting and to follow school rules if anything is found	ideas using e-mail and electronic communication- inside the school environment. Collaborate with other children outside of school	disadvantages. Use a range of sources to check reliability and validity; recognise different viewpoints and the impact of incorrect data. Understand plagiarism and the importance of acknowledging sources
--	--	--	--	--	--	---	--