

Progression in ICT

	Yr R	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6 +
	(FS)	Level 1	Level 2	Level 3		Level 4 (+)	
Research	Have experience of a variety of webpages, CD ROMs, photographs, posters etc	Search a CD ROM or web site with help	Search a CD ROM or web site purposefully; follow straightforward lines of enquiry	Search a CD ROM or website purposefully, choosing most appropriate search techniques for purpose. Search the internet purposefully, following straightforward lines of enquiry and be aware of responsible internet use and abide by the rules of the school.	Search the internet to find appropriate information and copy and use text and pictures appropriately. Be aware of responsible internet use and abide by the rules of the school	Search the internet taking care when framing questions; understand when the information is valid and present it for a chosen audience, copy and edit text and pictures for others to view. Be aware of responsible internet use and abide by the rules of the school	Search the internet using a range of operators to find a range of information; validate resources and check for bias in presenting to a specific audience, copy and edit text and pictures for others to view. Be aware of responsible internet use and abide by the rules of the school.
Datahandling (Charts and graphs)	Collect data and talk about it in various formats, including on screen. Use a pictogram program to select appropriate icons, recognise quantities and create a pictogram	Use a pictogram program to select appropriate icons, recognise quantities and create a pictogram. Amend data. Use data to answer simple questions. Create own bar graphs and use these to answer simple questions.	Create accurate and appropriate pictograms. Answer questions and make comparisons, Collect own data and create own block/ bar graphs and answer simple questions. Modify, save and retrieve work. Understand that if data has not been entered accurately it cannot be used to provide the answers to questions	Collect data and enter it into a data handling package and use it to create bar charts, pie charts and line graphs. Ask and answer simple questions.	Collect data in a way that aids entry into a data handling package and choose the appropriate form of graph to represent it. Ask and answer simple questions.		

Datahandling (branching databases)		Carry out practical sorting activities	Understand that some questions have only yes or no answers and practice asking such questions Search a pre-prepared branching database to identify objects	Add own information into a pre-prepared branching database and use it to identify objects.	Develop and search a branching database	Develop and search a branching database using efficient criteria	
Datahandling (Databases)			Enter data into a pre-prepared database	Enter data into a pre-prepared database, produce bar charts and interpret simple information	Enter data into a pre-prepared database. Use a database to produce bar charts and interpret information. Begin to talk about when they would use a database. Know they need to ask questions in different ways to find things out	Contribute to creating a database structure and enter own data, accurately. Construct different types of questions for different purposes, interpret information from simple bar charts. Carry out database searches using two or more criteria and recognise the importance of checking data	Create own database structure and enter data. Carry out complex searches to check hypotheses. Use 'AND', 'OR', 'more than' and 'less than' and 'is the same as' in their searches. Interpret, check and question data, identifying inaccuracies; recognise that poor quality information leads to unreliable results.
Modelling (simulations)	Explore software that represents a real or fantasy situation	Explore software and understand that a computer can represent real or fantasy situations and that these do not replicate the original exactly. Create a simple representation of a real or fantasy situation with help	Use a variety of software to represent real or fantasy situations and identify similarities and differences with 'real life'. Describe the effects when a model is changed to make something happen. Create a simple representation of a real or fantasy situation	Use a variety of software to represent real or fantasy situations for a purpose and identify similarities and differences with 'real life' and other software. Make predictions and describe the effects when a model is changed. Explain their choices/decisions.	Recognise patterns within simulations and make and test predictions.	Identify the relationships and rules on which the simulations are based and test their predictions.	Use models and simulations to explore patterns and relationships, and make predictions about the consequences of their decisions. Test the plausibility of the model by interpreting results against expectations

Modelling (graphical modeling)				Use a graphical modelling package to create and manipulate basic objects	Use a graphical modelling package to create, combine and manipulate objects and explore possibilities to solve a problem.	Use a graphical modelling package to create and explore an accurate graphical model to solve a problem, checking predictions and make decisions	
Modelling (spreadsheets)					Use a spreadsheet to produce a table of data to find things out and solve problems	Make appropriate use of a spreadsheet to carry out calculations (e.g. totals), to find things out and solve problems. Make changes to solve problems.	Explore the effect of changing the variables in simulations (e.g. changing the data in a spreadsheet), asking and answering 'what if...?' questions. Make changes to solve problems. Begin to explore patterns and relationships, and make predictions about the consequences of their decisions
Making things happen - Control	Identify control in everyday technology and use programmable toys to support their learning	Move a programmable toy along a given route, including turns and distance, one step at a time	Move a programmable toy along a given route, combining single step operations and simple sequences, beginning to predict outcomes	Predict, estimate, create and record a set of instructions to control a programmable toy (and /or other devices) and achieve specific outcomes	Design and create a sequence of events; write simple sequences and be able to link output devices together; amend their sequences to get a desired outcome	Design and create a more complex sequence which produces a combination of events; write, correct and improve sequences to link output devices together; realise the limitations of the system; <i>able pupils might progress to use simple monitoring</i>	Produce simple sequences to monitor the environment and turn on lights and sound alarms; need help with their program and will need to make amendments Begin to recognise the weaknesses of the system and make improvements

<p>Making things happen - Sensing</p>				<p>Use sensing equipment with support and guidance</p>	<p>Choose the appropriate sensor/s to monitor environmental conditions and changes and carry out experiments safely and independently</p>	<p>Understand when it might be appropriate to use a computer device for datalogging; select appropriate sensors and carry out the experiments safely and independently; draw simple conclusions from data</p>	<p>Choose when to use a computer sensing device, which to use and how to use it. Draw sensible and accurate conclusions. Import the information gathered (e.g. graphs) into other software packages to support wider conclusions</p>
<p>Communication Word processing and multimedia</p>	<p>Use a word bank to enter words.</p>	<p>Enter words into a word processor, entering single words from a keyboard; use a word bank to combine words, with help.</p>	<p>Use a word processor to produce sentences that communicate meaning. Combine graphics with text. Add a pre-recorded sound with help</p>	<p>Use a word processor to produce sentences that communicate meaning; refine sentences by adding words and making corrections; alter sentences in the light of comments, using the keyboard for the majority of the text. Combine graphics with text; use appropriate effects and re-size graphics. Add a pre-recorded sound</p>	<p>Combine graphics with text; choose effects that match their purposes so that the graphics and text complement each other. Record and insert a sound</p>	<p>Use a multimedia authoring package to assemble images, sound, video and text on a multimedia page</p>	<p>Use a number of applications to organise, refine and present a set of linked multimedia pages, which incorporate images, sounds, video and text; create pages which offer users a variety of options; present information that matches the needs of the audience.</p>

Communication - graphics	Use a painting program to create a picture	Use a painting program to create a picture; selecting, with help, the most appropriate tools to match their purposes	Take and print a digital photograph	Use a painting program to create a picture; select the most appropriate tools to match their purposes Describe to others their use of a paint package and their reason for choice of tools Take and edit a digital photograph and digital video. Create a simple animation	Use a computer graphics package to create a picture; select the most appropriate tools to match their purposes; develop an image and modify and correct their work as they go, saving drafts. Talk about the choices they have made and the reasons for their choices Take, edit and manipulate a digital photograph and digital video. Develop and organise work to create an animation	Take, edit and manipulate digital photographs and digital video. Develop and organise work to create an animation. Refine the quality of their work showing an awareness of the intended audience	
Communication - sound			Use music software to create a sequence of musical phrases	Record sounds. Use music software to develop a musical composition	Record and use sounds. Use music software to develop and refine a musical composition	Record and use sounds. Find and use appropriate pre-recorded sounds.	
Communication – electronic communication			Receive and reply to group e-mails		Send, receive and reply to e-mails; develop and refine text messages or a blog posting		Send, receive and reply to e-mails; develop and refine text messages or a blog posting .Talk about the advantages and disadvantages of using electronic communications.