



## Skills Progression

### Subject area: Computing

	Foundation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Generic skills</b>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• be aware that pressing buttons will make a device respond eg remote control toy</li> <li>• use the mouse and the keyboard to explore programs</li> <li>• be aware that moving the mouse moves the pointer on the screen</li> <li>• be aware of the effect of pressing the mouse buttons</li> <li>• have experience of a range of ICT equipment and software</li> <li>• talk about what they are doing with ICT use appropriate ICT vocabulary</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• be able to print work using the Print icon</li> <li>• use both hands on the keyboard</li> <li>• load programs with support</li> <li>• know that work can be saved and retrieved</li> <li>• save work with support</li> <li>• retrieve work with support</li> <li>• have experience of a range of ICT equipment and software</li> <li>• talk about what they are doing with ICT</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• use appropriate ICT vocabulary</li> <li>• load programs independently</li> <li>• save work independently</li> <li>• retrieve work independently</li> <li>• plan what they are going to do</li> <li>• make simple modifications to their work (edit)</li> <li>• practise keyboard skills using both hands, try to use more than two fingers, and try to use the thumb on the spacebar.</li> <li>• have experience of a range of ICT equipment and software describe their work and how they have used ICT</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• be aware that work can be saved in different places eg network, writeable CD ROM, PenDrive</li> <li>• be aware of folders and, with support, create and name new folders</li> <li>• print work using the drop down menu</li> <li>• use Print Preview</li> <li>• make changes to their work (edit)</li> <li>• select items and use cut, copy and paste as necessary</li> <li>• have experience of a range of ICT equipment and software</li> <li>• describe their work and how they have used ICT</li> <li>• annotate their work samples using prompts</li> <li>• use appropriate ICT vocabulary</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• with support, be able to choose an appropriate program to perform a task</li> <li>• plan what they are going to do and evaluate the results</li> <li>• understand that work can be saved in different places eg network, writeable CD ROM, PenDrive</li> <li>• understand the use of folders and be able to create and name new folders</li> <li>• understand and use the hierarchical file system</li> <li>• consolidate keyboard skills -possibly using typing tutor software</li> <li>• have experience of a range of ICT equipment and software</li> <li>• describe their work and explain how and why they have used ICT</li> <li>• annotate their work samples using prompts</li> <li>• use appropriate ICT vocabulary</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• be able to choose an appropriate program to perform a task</li> <li>• be able to combine and refine information from various sources.</li> <li>• interpret and question the plausibility of information.</li> <li>• have experience of a range of ICT equipment and software</li> <li>• describe and discuss their work and explain how and why they have used ICT</li> <li>• annotate their work samples using prompt questions</li> <li>• use appropriate ICT vocabulary</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• be able to choose and combine the use of appropriate ICT tools to complete a task</li> <li>• be able to critical evaluate the fitness for purpose of work as it progresses</li> <li>• have experience of a range of ICT equipment and software</li> <li>• describe and discuss their work and explain how and why they have used ICT</li> <li>• annotate their work samples using prompt questions</li> <li>• use appropriate ICT vocabulary</li> </ul>
<b>Graphics and digital video</b>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• experiment with an art package trying different tools and effects, as one of a range of media available</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• be able to use an art package as medium to convey their ideas, as one of a range of media available</li> <li>• be aware of a wider</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• be able to use an art package as an alternative medium</li> <li>• use a digital camera or digital video camera to take</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• be able to use a wider range of tools within an art package as necessary</li> <li>• do simple manipulation of images</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• use a wider range of tools within an art package as necessary</li> <li>• manipulate images using an art package or other software</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• use a wider range of tools within an art package as necessary</li> <li>• continue to manipulate images using an art package or other software</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>• use a wider range of tools within an art package as necessary</li> <li>• continue to manipulate images using an art package or other software</li> </ul>

	<ul style="list-style-type: none"> <li>begin to be use an art package as medium to convey their ideas, as one of a range of media available</li> <li>with support, use a digital camera or digital video camera to take pictures be aware that digital pictures and video can be displayed on a computer screen</li> </ul>	<p>range of tools in the art package</p> <ul style="list-style-type: none"> <li>use a digital camera or digital video camera to take pictures</li> <li>be aware that digital pictures and video can be saved on a computer</li> </ul>	<p>appropriate pictures or video for a specific purpose</p> <ul style="list-style-type: none"> <li>add captions or sound to digital pictures or video with support, be able to do simple manipulation of images using an art package or other software eg the digital camera's software</li> </ul>	<p>using an art package or other software eg the digital camera's software</p> <ul style="list-style-type: none"> <li>use a digital camera or digital video camera to take appropriate pictures or video for a specific purpose</li> </ul>	<p>continue to use a digital camera or digital video camera to take appropriate pictures or video for a specific purpose</p>	<ul style="list-style-type: none"> <li>begin to evaluate when it is appropriate to use an art package and when another medium would be more suitable</li> <li>continue to use a digital camera or digital video camera to take appropriate pictures or video for a specific purpose</li> </ul>	<ul style="list-style-type: none"> <li>know when it is appropriate to use an art package and when another medium would be more suitable</li> <li>continue to use a digital camera or digital video camera to take appropriate pictures or video for a specific purpose</li> </ul>
<b>Sound</b>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>with support, use cassette recorders / CD players to listen to pre-recorded sound</li> <li>with support, use cassette recorders / Dictaphones/sound buttons to record and playback sounds eg own voice, others voices experiment with music software</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use cassette recorders / CD players independently to listen to pre-recorded sound</li> <li>use cassette recorders / dictaphones to record and playback sounds eg own voice, others voices</li> <li>know that sound can be recorded and played back</li> <li>with support, use music software to experiment, create and play their own compositions</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use cassette recorders / dictaphones independently to record and playback sounds eg own voice, others voices</li> <li>be aware that sound can be recorded on the computer as a sound file</li> <li>use music software to experiment, create and play their own compositions with support, evaluate and modify (edit) their own compositions</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>continue to use cassette recorders / dictaphones independently to record and playback sounds eg own voice, others voices</li> <li>with support, be able to record sound on the computer and be able to use the sound files in other applications</li> <li>use music software to plan, create and play their own compositions</li> <li>evaluate and modify (edit) their own compositions</li> <li>use a range of musical instruments in their compositions</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>continue to use cassette recorders / dictaphones independently to record and playback sounds eg own voice, others voices</li> <li>be able to record and edit sound on the computer</li> <li>be able to use the sound files in other applications</li> <li>use more sophisticated music software to plan, create, edit and play their own compositions</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>continue to use cassette recorders / Dictaphones/sound buttons as appropriate</li> <li>continue to use the sound files in other applications</li> <li>use more sophisticated music software to plan, create, evaluate, edit and play their own compositions</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>continue to use cassette recorders / Dictaphones/sound buttons as appropriate</li> <li>continue to use the sound files in other applications</li> <li>continue to use more sophisticated music software to plan, create, evaluate, edit and play their own compositions</li> </ul>
<b>Multimedia</b>		<p>Most children will:</p> <ul style="list-style-type: none"> <li>with support, add captions or sound to digital pictures or video</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>with support, use a storyboard to do simple editing of a sequence of digital pictures or video eg change sequence, add transitions</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use a storyboard to edit a sequence of digital pictures or video eg change sequence, add transitions, effects, and sound</li> <li>with support, be able to create a simple presentation or digital</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>be able to design and create a presentation or digital film eg to show other pupils what they did on a school trip</li> <li>begin to evaluate the suitability of the presentation for the given audience</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>design and create a presentation or digital film eg to show other pupils what they did on a school trip</li> <li>evaluate the suitability of the presentation for the given audience</li> <li>make changes to the presentation to make it more</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>select and use a range of software and hardware tools to produce a presentation or digital film for a specific audience eg present an account of their residential trip to their peers</li> <li>create hyperlinks for resources made or found.</li> </ul>

				film eg to show year 2 pupils what KS2 is like	<ul style="list-style-type: none"> <li>with support, make changes to the presentation to make it more suitable for the audience</li> </ul>	suitable for the audience	<ul style="list-style-type: none"> <li>modify the presentation to make it more suitable for a different audience eg parents</li> </ul>
<b>Word Processing and email</b>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use the keyboard to enter letters strings (play writing)</li> <li>begin to use the space bar to break letter strings into groups of letters</li> <li>use the Back Space key to delete use a wordbank or word list to enter text eg to match with pictures</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>put text on screen</li> <li>use upper and lower case</li> <li>use the space bar</li> <li>use the Return key</li> <li>use the Shift key to make a capital letter</li> <li>use word lists to enter text</li> <li>with support, print their work using the Print icon</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>know that text can be saved and retrieved</li> <li>change the font style</li> <li>change the font size</li> <li>change the font colour</li> <li>print their work using the Print icon</li> <li>use the cursor (arrow) keys for simple on screen editing</li> <li>with support, import graphics and add text with support, write and send a short email eg to Santa</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>select text and change the font style, size and colour</li> <li>select text and use Bold and Underline icons</li> <li>use the cursor (arrow) keys for simple on screen editing</li> <li>use the scroll bars to view different parts of the document justify / align text</li> <li>import graphics and add text</li> <li>print using the menu</li> <li>use print preview</li> <li>know that email exists</li> <li>with support, logon to an email account</li> <li>with support, logout from an email account</li> <li>compose and send email eg to a pre-arranged partner in another class in the school or in another school</li> <li>begin to be aware of email safety rules</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>import graphics and use the Picture Toolbar to choose the text wrapping</li> <li>use the spell checker</li> <li>use Find, search and replace if appropriate</li> <li>use Page Setup to choose Portrait or Landscape page as appropriate</li> <li>learn how to insert and use a simple table</li> <li>use the Zoom menu to view the whole page</li> <li>know that mail can be sent all over the world electronically via computers (email)</li> <li>logon to an email account</li> <li>logout from an email account</li> <li>use email as a communication tool eg to exchange information with pupils in another school as part local study work</li> <li>with support, send a picture or document as an attachment</li> <li>be aware of email safety rules</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use and practise their word processing skills in a range of contexts</li> <li>use email as a communication tool to collaborate with other pupils eg to work together on a project</li> <li>send a picture or document as an attachment</li> <li>know that files can be send via email as attachments</li> <li>know that email can be sent or copied to more than one person</li> <li>know that an email can be forwarded to another person</li> <li>begin to be aware that computer viruses can be sent via email</li> <li>be aware of email safety rules</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use and practise their wordprocessing skills in a range of contexts</li> <li>use email as a communication tool to collaborate with other pupils</li> <li>be aware that computer viruses can be sent via email</li> <li>be aware of email safety rules</li> </ul>
<b>Control and Logo</b>	<ul style="list-style-type: none"> <li>be aware that many everyday devices respond to commands</li> <li>learn to switch on a programmable toy to activate movement</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>know that many everyday devices respond to commands</li> <li>follow simple instructions eg playing at robots, country dancing (pre-Logo activities)</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>control a programmable robot, with a purpose (defined by either teacher or child)</li> <li>understand that , once programmed a programmable robot</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>plan, write, evaluate, and edit a sequence of instructions to a move a programmable robot</li> <li>attach a pen to programmable robot to record movements eg shapes</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>begin to experiment with on-screen control software to control outputs</li> <li>experiment with on-screen control software to control outputs</li> <li>be aware that the</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use on-screen control software to plan, create and run a set of instructions to make eg to change the traffic lights</li> <li>evaluate and edit the set of instructions to make a more efficient system</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use on-screen control software to plan, create and run a more complex set of instructions</li> <li>use information from a sensor (input) to initiate parts of the control program</li> <li>plan and create a control</li> </ul>

	<ul style="list-style-type: none"> <li>begin to follow simple instructions eg playing at robots, country dancing (pre-Logo activities)</li> <li>play with remote control toys</li> <li>play with programmable robots be aware that pressing buttons makes the toy or robot respond</li> </ul>	<ul style="list-style-type: none"> <li>control a programmable robot in linear scenarios, using Forward and Backward commands (arrows) and the Go command</li> <li>use trial and error to create a sequence of instructions to a move a programmable robot</li> </ul>	<p>can repeat the same instructions</p> <ul style="list-style-type: none"> <li>plan and create a sequence of instructions to a move a programmable robot</li> </ul>	<ul style="list-style-type: none"> <li>be aware that Logo is a computer language</li> <li>be aware that Logo is a computer language</li> <li>plan, write, evaluate, and edit a simple Logo procedure for a specific purpose (a set of Logo instructions that can be saved, retrieved, and edited)</li> <li>use the Repeat command eg to create simple shapes</li> </ul>	<p>computer can be used to control external devices (outputs) eg lights, buzzers, motors and that these can be simulated by pictures on screen</p> <ul style="list-style-type: none"> <li>with support, use on-screen control software to plan, create and run a simple set of instructions to make eg a light flash</li> <li>evaluate and edit the instructions</li> <li>test and modify Logo procedure.</li> <li>predict the outcome of a Logo procedure</li> <li>incorporate Pen Up and Pen Down commands</li> </ul>	<ul style="list-style-type: none"> <li>predict the outcome of a control procedure</li> <li>be aware of control applications in everyday life eg automatic doors, robots in car factories, automatic security lights</li> <li>create patterns using repeated simple procedures</li> <li>test, modify and improve Logo patterns</li> <li>explore the effect of changing a variable within a procedure</li> <li>predict the effect of changing a variable</li> </ul>	<p>system to answer a task</p> <ul style="list-style-type: none"> <li>know when it would be appropriate to use a control system</li> <li>create more complex patterns using repeated simple procedures</li> </ul>
<b>Data logging</b>				<p>Most children will:</p> <ul style="list-style-type: none"> <li>be aware that digital devices eg thermometers can be used to measure external changes eg temperature</li> <li>with support, use a temperature sensor to record changes in temperature eg as part of a science experiment</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use a temperature sensor to record and display the changes in temperature eg as ice melts</li> <li>know that the computer can be used to display the results from either a remote sensing device or a sensing device attached to the computer</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>be aware of other sensors that can be used eg light sensor, sound sensor, pulse monitor</li> <li>be able to interpret the data from the sensing device</li> <li>use sensing devices eg in their science experiments</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>know when it would be appropriate to use a sensing device eg in a science experiment</li> <li>be able to use a range of sensors as appropriate</li> </ul>
<b>Research</b>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>explore CD ROM resources eg Talking Books</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>with support, use CD ROMs to find information eg from a CD ROM encyclopaedia</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use CD ROMs to find information eg from a CD ROM encyclopaedia</li> <li>with support (Favourites file, hyperlinks set up by the teacher) use the Internet to find information for a topic</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>with support, use simple search tools to find information on CD ROMs and the Internet eg child friendly Search Engine</li> <li>use a range of sources to find information eg CD ROMs, the Internet</li> <li>begin to be aware of Internet safety rules</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use simple search tools to find information on CD ROMs and the Internet</li> <li>be aware of Internet safety rules</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>with support, use a more complex search engine to find information on CD ROMs and the Internet</li> <li>use AND and OR in their searches</li> <li>with support, check the accuracy of information</li> <li>begin to be aware of privacy and other issues related to using the Internet</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use a more complex search engine to find information on CD ROMs and the Internet</li> <li>check the accuracy of information</li> <li>be aware of privacy and other issues related to using the Internet</li> </ul>
<b>Data handling</b>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>do practical sorting activities and discuss sorting</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>develop simple classification skills based on practical</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>independently plot data as a pictogram, block chart or bar</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>collect and enter data into a prepared database structure</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>begin to identify datahandling opportunities</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>carry out more complex searches on more complex prepared databases eg be</li> </ul>	<p>Most children will:</p> <ul style="list-style-type: none"> <li>use a more complex database to explore patterns and relationships in data eg</li> </ul>



	criteria begin to develop simple classification skills	sorting activities <ul style="list-style-type: none"> <li>with support, use simple dataplotting/graphing programs to produce pictograms and other simple graphs</li> </ul>	graph <ul style="list-style-type: none"> <li>be aware that graph types can be changed</li> <li>interpret the graphs - discuss the graphs and answer simple questions</li> </ul> use the search tools in a prepared database to answer simple questions.	<ul style="list-style-type: none"> <li>use the search tools to answer simple questions relevant to an investigation</li> <li>sort the data</li> <li>learn how to produce graphs from the data</li> <li>learn to amend errors</li> <li>know that libraries store data about all books and readers on computer and compare this with school's library system</li> </ul>	<ul style="list-style-type: none"> <li>prepare a data collection form</li> <li>identify fields</li> <li>create a datafile and enter data</li> <li>use the database to carry out an investigation</li> <li>present data in different forms – graphs, tables</li> <li>amend errors</li> </ul>	able to answer complex questions such as – Did all the minibeasts in a particular habitat have the same diet? <ul style="list-style-type: none"> <li>use AND and OR in their searches</li> <li>identify datahandling opportunities, set up a datafile and enter data</li> <li>check for validity and amend errors</li> <li>use the datafile to answer complex questions</li> </ul>	In a minibeasts database - Is there a relationship between habitat and diet? <ul style="list-style-type: none"> <li>independently set up and use a datafile to carry out an investigation</li> <li>amend and delete data from records</li> <li>use editing tools to alter the design of a graph</li> <li>organise, refine and present information appropriate to the audience</li> </ul>
<b>Spreadsheets</b>				Most children will: <ul style="list-style-type: none"> <li>with support, use a spreadsheet to record data and produce graphs</li> <li>with support, enter data in a prepared spreadsheet</li> <li>with support, select data to produce a graph</li> </ul>	Most children will: <ul style="list-style-type: none"> <li>use a spreadsheet to record data and produce graphs</li> <li>enter data in a prepared spreadsheet</li> <li>select data to produce a graph</li> <li>use a spreadsheet to explore number patterns eg in a hundred square, multiplication table</li> </ul>	Most children will: <ul style="list-style-type: none"> <li>be able to set up a spreadsheet with appropriate headings</li> <li>be able to use a simple formula eg SUM</li> <li>use a spreadsheet to investigate eg cost of foods / drinks Which is the best value drink?</li> </ul>	Most children will: <ul style="list-style-type: none"> <li>be able to use formulae and functions in a spreadsheet</li> <li>alter the format of a spreadsheet</li> <li>change data to satisfy 'What if' queries</li> <li>use a spreadsheet to solve simple problems eg the relationship between the perimeter and area of a quadrilateral</li> </ul>