



Grangetown Primary School Computing Progression of Skills



E-safety

Year Group	Unit	National Curriculum	Skills	Resource
Y1	E-Safety	<i>Use technology safely and respectfully, keeping personal information private;</i>	<ol style="list-style-type: none">1. Keep personal information private.2. Why do websites want personal information.3. Identify when and where to go for help when concerned.	https://www.ilearn2.co.uk/e-safety---key-stage-1.html/ Twinkl e-safety resources
Y2	E-Safety	<i>identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</i>	<ol style="list-style-type: none">1. What are the dangers of sharing photos online?2. People are not always who they say they are online.3. Trusting information online.4. Using the Internet responsibly.5. Being respectful.	https://www.ilearn2.co.uk/e-safety---key-stage-1.html/ Twinkl e-safety resources
Y3	E-Safety	<i>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</i>	<ol style="list-style-type: none">1. Understand what to do if something upsets you online.2. Understand why and how people can be nasty online.3. Describe the term 'sharing online' and why we need to get permission to share photos and videos of other people.4. Understand why people pretend to be someone else online.5. Understand why we only talk to people we know in the real world, when online.6. Understand why we should not always trust what we read online and how to check7. Understand the importance of being kind in the real world and also online.	https://www.ilearn2.co.uk/e-safety---key-stage-2.html/ Twinkl e-safety resources
Y4	E-Safety		<ol style="list-style-type: none">1. Understand what to do if something upsets you online.2. Understand why and how people can be nasty online.3. Describe the term 'sharing online' and why we need to get permission to share photos and videos of other people.	https://www.ilearn2.co.uk/e-safety---key-stage-2.html/ Twinkl e-safety resources



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			<ol style="list-style-type: none"> 4. Understand why people pretend to be someone else online. 5. Understand why we only talk to people we know in the real world, when online. 6. Understand why we should not always trust what we read online and how to check 7. Understand the importance of being kind in the real world and also online. 	
Y5	E-Safety		<ol style="list-style-type: none"> 1. Keep personal information private. 2. Respect and protect against online bullies. 3. Understand the consequences of sharing photo/videos online. 4. Understand the term digital footprint. 5. How can we check online content is trustworthy. 6. How and where and who can we report concerns we have to. 	<p>https://www.ilearn2.co.uk/e-safety---key-stage-2.html/</p> <p>Twinkl e-safety resources</p>
Y6	E-Safety		<ol style="list-style-type: none"> 1. Keep personal information private. 2. Respect and protect against online bullies. 3. Understand the consequences of sharing photo/videos online. 4. Understand the term digital footprint. 5. How can we check online content is trustworthy. 6. How, where and who can we report concerns we have to. 7. Use suitable usernames and passwords for online accounts. 	<p>https://www.ilearn2.co.uk/e-safety---key-stage-2.html/</p> <p>Twinkl e-safety resources</p>
Mouse and Keyboard Skills				
Y1	Keyboard and Mouse Skills	Use technology purposefully to create, organise, store,	<ol style="list-style-type: none"> 1. Mouse and keyboard skills; move mouse, left/right click, drag and drop. 2. Typing; Find letters on keyboard and begin touch typing with home row keys. 	<p>https://www.ilearn2.co.uk/eyfsyear-1-mouse-and-keyboard-skills.html/</p> <p>(4-6hours)</p>



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Y2	Typing	manipulate and retrieve digital content	<ol style="list-style-type: none">1. Mouse and keyboard skills; move mouse, left/right click, drag and drop.2. Typing; Find letters on keyboard and begin touch typing with home row keys.3. To use capslock and spacebar	https://www.ilearn2.co.uk/touch-typing.html/
Y3	Typing	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	<ol style="list-style-type: none">1. Mouse and keyboard skills; move mouse, left/right click, drag and drop.2. Typing; Find letters on keyboard and begin touch typing with home row keys.3. To use capslock and spacebar4. Learn f d s a j k l ; g and h e l r u	https://www.ilearn2.co.uk/touch-typing.html/
Y4	Typing		<ol style="list-style-type: none">1. Mouse and keyboard skills; move mouse, left/right click, drag and drop.2. Typing; Find letters on keyboard and begin touch typing with home row keys.3. To use capslock and spacebar4. Learn f d s a j k l ; g and h e l r u5. Learn v m b n c x z , capital letters, ' \ .	https://www.ilearn2.co.uk/touch-typing.html/
Y5	Typing		<ol style="list-style-type: none">1. Mouse and keyboard skills; move mouse, left/right click, drag and drop.2. Typing; Find letters on keyboard and begin touch typing with home row keys.3. To use capslock and spacebar4. Learn f d s a j k l ; g and h e l r u5. Learn v m b n c x z , capital letters, ' \ .6. Finger reaches for the full alphabet7. Using the finger reach method, introduce index and middle finger letter keys, Space Bar, and proper posture8. Using the finger reach method, introduce beginning punctuation and more index, middle, ring, and little finger letter keys	https://www.ilearn2.co.uk/touch-typing.html/



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Y6	Typing		<ol style="list-style-type: none">9. Introduce remaining letter keys and Enter key1. Mouse and keyboard skills; move mouse, left/right click, drag and drop.2. Typing; Find letters on keyboard and begin touch typing with home row keys.3. To use capslock and spacebar4. Learn f d s a j k l ; g and h e l r u5. Learn v m b n c x z , capital letters, ' \ .6. Finger reaches for the full alphabet7. Using the finger reach method, introduce index and middle finger letter keys, Space Bar, and proper posture8. Using the finger reach method, introduce beginning punctuation and more index, middle, ring, and little finger letter keys.9. Introduce remaining letter keys and Enter key10. Practice common English words and easy Home, Top, and Bottom Row words11. Teach capitalisation, punctuation, sentences, and short paragraphs	https://www.ilearn2.co.uk/touch-typing.html/
<h3>Computing in the Wider World</h3>				
Y1	N/A	N/A	N/A	N/A
Y2	Recognise the uses of IT	Recognise common uses of information technology beyond school	<ol style="list-style-type: none">1. Understand what makes a computer a computer.2. Understand computers store and follow instructions.3. Spot digital technology in school.4. Understand how different technology helps us.	Preview - Year 2 Uses of IT - Primary Computing Resources - iLearn2



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Y3	Document Editing and Creation	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.	<ol style="list-style-type: none">1. Copy and Paste text and images.2. Find and replace words.3. Format text for a purpose.4. Add bullet points to make lists.5. Experiment with keyboard shortcuts.	Preview - Year 3 Document Creation - Primary Computing Resources - iLearn2
Y4	Internet Research	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	<ol style="list-style-type: none">1. Use search technologies to find specific pieces of information.2. Understand features of an Internet Browser.3. Reference the correct source of information.4. Be discerning in evaluating digital content.5. Check the internet for fake news by cross-referencing facts.	Year 4 Internet Research - Primary Computing Resources - iLearn2
Y5	Computer Networks + the Internet	Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.	<ol style="list-style-type: none">1. Understand Computer Networks, Internet and Cloud Computing and how they help us.2. What is email and how can we use it safely?3. Understand how and why we collaborate online (including blogging).	Year 5 Computer Networks Activity Pack- Primary Computing Resources - iLearn2
Y6	Machine Learning and A.I	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.	<ol style="list-style-type: none">1. Understand how computers use information to learn by solving new problems and following new instructions.2. Understand and use examples of machine learning.3. Understand how artificial intelligence is used to perform tasks often only performed by humans.4. Discuss and show awareness of potential dangers of AI.	Year 6 Machine Learning Activity Pack - Primary Computing Resources - iLearn2



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Multimedia Text and Images

Y1	Comic Creation	<i>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i> Recognise common uses of information technology beyond school	<ol style="list-style-type: none">1. Comic creation covers a wide range of objectives including:2. Add, resize and organise colour or picture backgrounds3. Add, resize, organise characters/objects to different panels4. Add narration using text and direct speech using speech bubbles.	https://www.ilearn2.co.uk/comiccreationteacher.html/ (3-4 hours)
Y2	E-Book Creation		<ol style="list-style-type: none">1. Add a book cover with title, author, colour and image.2. Add multiple pages based on a theme.3. Add text on different pages.4. Add images on different pages to match the theme/text.5. Add voice recordings to match the text and theme.	https://www.ilearn2.co.uk/ebookcreationks1.html/ (3-4 hours)
Y3	Comic Creation	<i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i>	<ol style="list-style-type: none">1. Add, resize and organise colour or picture backgrounds.2. Add, resize, organise characters/object to different panels.3. Add narration using text and direct speech using speech bubbles.	https://www.ilearn2.co.uk/comiccreationteacher.html/ (3-4 hours)
Y4	E-Book Creation	<i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i>	<ol style="list-style-type: none">1. Add page colour and style then position and format text.2. Add and position images from camera/internet.3. Add audio, including hiding it behind an object.4. Add hyperlinks to text and images.5. Add and format shapes.6. Use hyperlinks for navigation.	https://www.ilearn2.co.uk/year-4-ebook-creation.html/ (3-5 hours)



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Y5	Ebook Creation	<i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i>	<ol style="list-style-type: none">1. Add page colour and style then position and format text.2. Add and position images from camera/internet.3. Add audio, including hiding it behind an object.4. Add hyperlinks to text and images.5. Add and format shapes.6. Use hyperlinks for navigation.	https://www.ilearn2.co.uk/year-5-ebook-creation.html/ (3-5hours)
Y6	Web Design	<i>Design and create digital content to accomplish goals.</i>	<ol style="list-style-type: none">1. Add and format text within a website.2. Organise sections of web-pages and multiple page with relevant titles.3. Add and edit images.4. Include other features such as hyperlinks, buttons and files.5. Evaluate other websites and provide constructive feedback.6. Make necessary changes to the website based on feedback.	https://www.ilearn2.co.uk/year-6-web-design.html/ (5-8 hours)
EYFS	Digital Art and Design	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	<ol style="list-style-type: none">1. Uses simple tools and techniques competently and appropriately2. Selects appropriate resources and adapts them where necessary3. Explores how colours can be changed4. Chooses particularly colours to use for a purpose	https://www.ilearn2.co.uk/digital-art---early-years.html/
Y1	Digital Art	<i>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i>	<ol style="list-style-type: none">1. Change the colour of individual pixels to accurately re-create basic artwork.2. Make changes where required.3. Change the colour of individual pixels to accurately re-create detailed artwork.	https://www.ilearn2.co.uk/year1digitalart.html/ (1-2 hours)
Y2	Digital Art		<ol style="list-style-type: none">1. Use lines and fill tools to make interesting patterns.2. Add a variety of shapes (outlines and fill) and label them with text.	https://www.ilearn2.co.uk/year-2-digital-art.html/ (3-4 hours)



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			3. Re-create graphics using pixels with different colours.	
Y3	Digital Art	<i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i>	<ol style="list-style-type: none"> 1. Use various lines and fill tools plus copy/paste and rotation to create pattern effects. 2. Use shapes, fill, copy/paste, zoom and flip to create reflective symmetry effects. 3. Use stamps, copy/paste, layers and multiple frames to create animated GIF computer graphics. 	https://www.ilearn2.co.uk/year3digitalart.html/ (4-6 hours)
Y4	3D Design (3D village)		<ol style="list-style-type: none"> 1. Understand 3D spacial awareness. 2. Add 3D shapes, resize, adjust height, duplicate and use the different perspective. 3. Re-create different types of buildings using 3D shapes. 4. Create roads/paths by adjusting the height of 3D shapes. 5. Add windows and door shapes. 	https://www.ilearn2.co.uk/3ddesignteacher.html/ (3-4 hours)
Y5	App Design		<ol style="list-style-type: none"> 1. Adjust slide size to mimic a phone/tablet size. 2. Add text and images to a slide. 3. Add icons and text to use as navigation. 4. Duplicate slides to create multiple pages of the app. 5. Create hyperlinks to create navigation. 	https://www.ilearn2.co.uk/appdesignteacher.html/ (4-6 hours)
Y6	Graphic Design	<i>Design and create digital content to accomplish goals.</i>	<ol style="list-style-type: none"> 1. Add, adjust and fill shapes. 2. Group shapes to improve accuracy and speed. 3. Add and customise gradient effects. 4. Adjust transparency/opacity for a purpose. 5. Use a colour picker correctly. 6. Accurately rotate shapes. 	https://www.ilearn2.co.uk/year6graphicdesign.html/ (2-3 hours)
<h3>Data Handling</h3>				
Y1	Data Handling	<i>Use technology purposefully to create,</i>	<ol style="list-style-type: none"> 1. to understand how data can be displayed in various ways including pictograms, bar charts, pie charts and tally charts. 	Top Marks https://www.topmarks.co.uk/maths-games/5-7-years/data-handling



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Y2	Data Handling	<i>organise, store, manipulate and retrieve digital content</i>	2. Create own bar and tally charts. 1. Understand what data is and collect it as a tally. 2. Label a pictogram and add data to each column. 3. Edit a table with correct titles and numbers. 4. Create a bar chart/pie chart/line chart suitable for the data. 5. Interpret a pictogram/bar chart/line chart.	https://www.ilearn2.co.uk/year-2-data-handling.html/ (3-4 hours)
Y3	Data Handling	<i>Collect, classify and present data.</i>	1. Add and label objects within a branching database. 2. Ask questions to sort (classify) objects.	https://www.ilearn2.co.uk/year3branchingdatabases.html/ (1hour)
Y4	Data Handling	<i>Collecting, analysing, evaluating and presenting data and information.</i>	1. Change appearance of cells in a spreadsheet (fill colour and border) then add and align text. 2. Find and add data to a spreadsheet, resize cells and use the software to create a suitable chart with a title.	https://www.ilearn2.co.uk/year4datahandling.html/ (3-4 hours)
Y5	Data Handling	<i>Select, use and combine a variety of software (including internet services). Collecting, analysing, evaluating and presenting data and information.</i>	1. Select and use non-adjacent cells plus resize multiple cell widths and copy/paste cells. 2. Find data and create a spreadsheet to suit it. 3. Use formulae to find totals, averages and maximum/minimum numbers. 4. Search a database for specific information.	https://www.ilearn2.co.uk/year5datahandling.html/ (3-4 hours)
Y6	Data Handling	<i>Select, use and combine a variety of software (including internet services). Collecting, analysing, evaluating and presenting data and information</i>	1. Write spreadsheet formula to solve more challenging maths problems. 2. I can create and publish my own online quiz with a range of media (images and video)	https://applieddigitalskills.withgoogle.com/c/middle-and-high-school/en/guide-to-an-area/overview.html https://kahoot.com/schools/



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<h3>Coding/Programming</h3>				
EYFS	Programming	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	<ol style="list-style-type: none"> 1. Knows how to operate simple equipment 2. Give instructions 	<p>https://www.ilearn2.co.uk/early-programming---early-years.html/</p> <p>https://beebot.terrapinlogo.com/</p>
Y1	Introduce Programming	<i>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</i>	<ol style="list-style-type: none"> 1. Understand sequence and algorithms. (All activities) 2. Sequence instructions (commands) to achieve an objective. (All activities) 3. Use distances in commands. (extension task of activity 4) 4. Predict, write, execute and debug a simple program. (Activity 3 onwards) 	<p>https://www.ilearn2.co.uk/year-1-programming.html/</p> <p>5-7 hours</p>
Y2	Develop Programming	<i>Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.</i>	<ol style="list-style-type: none"> 1. Create and debug simple programs by selecting code blocks, placing them in the correct sequence and executing a program. 2. Use logical reasoning to predict the behaviour of simple programs. 3. Simplify a program by using a loop. 	<p>https://www.ilearn2.co.uk/year-2-programming.html/</p> <p>(3-4 hours)</p>
Y3	Programming In Scratch	<i>Design, write and debug programs that accomplish specific goal, including simulating physical systems.</i>	<ol style="list-style-type: none"> 1. Design, write and debug programs that accomplish specific goals. (Including outputs) 2. Use repetition in programs. (Activity 2) 3. Work with various form of inputs; keyboard, mouse and touch screen. (Activity 3 and 4 below) 4. Write programs that simulate physical systems (Activity 5) 	<p>https://www.ilearn2.co.uk/y3scratch.html/</p> <p>(4-6 hours)</p>



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Y4	Programming in Scratch	<i>Use sequence, selection, and repetition in programs; work with various forms of input.</i>	<ol style="list-style-type: none">1. Use sequence, selection, and repetition in programs.2. Work with variables and various forms of input and output.3. Debug programs that accomplish goals.4. Work with variables and conditions.	https://www.ilearn2.co.uk/y4scratch.html/ (6-8 hours)
Y5	Programming in Scratch	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	<ol style="list-style-type: none">1. Program list variables that chooses randomly.2. Program inputs, conditions and sensing for interaction, data variables for scoring and a game timer.3. Program Inputs, outputs, loops, conditions, sensing and variables.	https://www.ilearn2.co.uk/y5scratch.html/ (5-7 hours)
Y6	Programming in Scratch		<ol style="list-style-type: none">1. Program inputs, conditions, random variables for unpredictability, game timer.2. Program inputs, conditions, sensing, random variables, operators for direction and data variables for scoring.3. Use inputs, conditions, loops, sensing, costume changes and broadcasts.4. Work with multiple sprites to send broadcast messages between them.	https://www.ilearn2.co.uk/y6scratch.html/ (6-8 hours)