

## SKILLS PROGRESSION COMPUTING

Concept	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Digital Literacy</b>  <b>Disciplinary</b>	<p>Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.</p> <p>Interact with activities (phonics games etc)</p>	<p>Use word processing software throughout the year to create digital content (<i>e.g. type up stories</i>) <b>Leaflet/Google slides</b></p> <p>Change font sizes and colour and add images using word processing software. <b>Poster /Leaflet/Google slides</b></p> <p>Add appropriate images to word processing software/strip design/pic collage.</p> <p>Use Strip Design/Pic Collage to create simple <b>posters</b> on the iPads. <b>Leaflet/Google slides</b></p> <p>Use Strip Design/Pic Collage to create simple timelines based around history/literacy etc.</p>	<p>Use PowerPoint to create a meaningful presentation. Change the font, size and colour and add appropriate images to communicate meaning for a given audience (<i>discuss how this changes between audiences</i>). <b>Google slides / Powerpoint</b></p> <p>Use technology to create and manipulate digital content (<i>e.g. creating posters/PowerPoints/word documents</i>) <b>Google slides</b></p> <p>Use painting software to create a digital painting for a purpose (<i>e.g. as a background for digital content mentioned above</i>)</p>	<p>Use digital software (database tools) to present data. (<i>opportunities to link with maths/topic/science</i>).</p> <p>App smash by using child-created content from Pic Collage/Strip Design/ Word/ Painting etc. in presentations.</p> <p>Know that PowerPoint is mainly used to present information.</p> <p>Use PowerPoint effectively to present information and know that not all information is required on the slides as some is verbal.</p>	<p>Use Desktop Publishing software to create a document for purpose (<i>e.g. a leaflet or poster</i>) and format it effectively.</p> <p>Use Explain Everything (iPad app) to create a short presentation about a maths/literacy concept to teach others.</p> <p>Be able to take screenshots to use in other apps/software.</p>	<p>Create a movie linked to a topic using iMovie.</p> <p>Use green screen software to create videos to use within iMovie.</p> <p>Use digital software to create music to use within iMovie.</p> <p>Create an e-book linked to Literacy or Topic.</p> <p>Choose appropriate software to create a digital poster linked to topic.</p> <p>Evaluate effectiveness of software to create a digital poster.</p> <p>Be able to use a range of devices to create digital content (<i>e.g. voice recording, video recording, animation software</i>)</p>	<p>Be able to choose and justify an appropriate software for the task/audience.</p> <p>Be able to use previously taught skills to format a presentation appropriately for the task/audience.</p> <p>Be able to evaluate software against a given task.</p> <p>Use Excel software to present and analyse data and information.</p> <p>Be able to App Smash using a range of software for effect (<i>such as Explain Everything, Phoster, Strip Design, DoInk, iMovie, Pic Collage</i>)</p> <p>Be able to demonstrate competence across using Word Processing, Desktop Publishing and Presentation software.</p>
<b>Substantive</b>				<p>Know how to format a Word Document for a variety of purpose (<i>e.g. alignment of text, insert a table/picture/list</i>).</p>	<p>Know how to add a sound clip/video to PowerPoint which has been created through other means.</p> <p>Know how to use slide transitions and animations effectively.</p> <p>Know how to add hyperlinks to create a non-linear presentation in PowerPoint.</p>	<p>Abide by copyright rules when choosing digital content to use.</p>	

<b>Computer Science Disciplinary</b>	Use and explore codepillar and beebots	<p>Begin to recognise that an algorithm is a set of instructions.  <i>(could be taught with an ‘unplugged’ session – show a picture of a Lego tower and in pairs they build it – one has instructions [introduce as an ‘algorithm’] and the other has blocks. Can also be done with instructions to put socks on/make tea/Simon Says/mazes etc.)</i></p> <p>Be able to write a simple algorithm (unplugged) (e.g. to move a partner/Beebot around a maze. Can use Beebot app or robot).</p> <p>Predict what a program will do.</p> <p>Beebot /Scratch Junior</p>	<p>Predicting the behaviour of a program and creating simple programs.  <i>(Download a simple scratch project for chn to explore. For example, can they change the text a character says? )</i></p> <p>Scratch junior - movement of two characters simultaneously and begin to look at repetition in programs</p>	<p>Use sequence, repetition and variables in programs.          Design programs that accomplish specific goals.          Debug programs using logical reasoning to ensure they accomplish specific goals.          Begin to understand how decomposing is important to the programming process          Use Crumble Kits – sparkle</p>	<p>Solve problems by decomposing them into smaller parts.          Use sequence, selection and repetition in programs.          Logical reasoning to detect and correct errors in algorithms.          Design, write and debug programs that accomplish specific goals.          Use crumble kits – sparkles and buttons, Scratch Laptops</p>	<p>Use logical reasoning to detect and correct errors in programs.          Use sequence, selection and repetition to create programs that accomplish specific goals.          Use crumble kits – begin with sparkles/button, move onto motors. Scratch laptop</p>	<p>Use logical reasoning to explain how simple algorithms work.          Be able to use input and output devices together within a program.          Be able to design, write and debug programs that control physical systems.          Be able to design, write and debug programs that simulate physical systems.          Use sequence, selection and repetition to create programs that accomplish specific goals.  <i>(For example, using a crumble kit with a light sensor and a sparkle. Encourage chn to think about where this applies in real life. Controlling traffic lights using crumble kits and buttons) Caddies</i></p> <p>Scratch laptops</p>
<b>Substantive</b>			<p>Know that an algorithm is a set of instructions for a purpose.          Know that programs execute by following precise and unambiguous instructions. <i>(Could pre-programme a beebot and have chn try to write down the sequence of instructions. Or look at Scratch Junior)</i></p> <p>Understand how algorithms are implemented as programs on digital devices and create and debug them.  <i>(Use beebots/Scratch junior to encourage chn to think logically.)</i></p>			<p>Be able to explain what a variable is and be able to use variables within a program.          Be able to explain what an input device is and use various input devices in programming.          Be able to explain what an output device is and use various outputs in programming.</p>	

<b>Information Technology Disciplinary</b>		Develop an awareness of appropriate language for email/ <u>blogging</u> . Begin to use the internet to research a simple subject. Be developing in typing skill.	Contribute to a class blog. Use technology to organise, store and retrieve digital content. <i>(Using the shared network to save files, organise them into folders and retrieving them through software).</i>	Use different font sizes, colours and images purposefully when creating digital content. <i>(e.g. to make text stand out or to follow a specified colour scheme)</i> Open received blog messages and save attachments to appropriate place. Continue to use key words when navigating the internet. Be able to type with increasing accuracy and efficiency.	Work more independently when blogging. Create a purposeful database to present data. <i>(edublogs websites are good for this)</i> Be able to sort information within a database. Use 'advanced search' on a search engine to use search engines effectively. Create a QR code for a purpose <i>(using Qrafter)</i> Be able to type most words quickly and without hesitation.	Appreciate how search results are ranked Work independently when blogging. Be able to type efficiently and accurately.	Be discerning in evaluating digital content. Work independently when blogging. Be able to use a variety of passwords and usernames to log onto devices and websites. Be able to type accurately and efficiently.
<b>Substantive</b>	Identify IT around the home and school and understand it's purpose.	Understand how to save/retrieve data. Know how to open and close programs. Know how to control a computer/laptop/iPad Know how to navigate the internet. Be able to log onto laptop/iPad.	Be able to log onto an email OR a <u>class blog</u> using own username and password. Be able to use appropriate language for an email or <u>blog</u> post and discuss the importance of appropriate language in the real world. Know how to navigate the internet using key word	Know how to choose a recipient, forward and add attachments to a blog and understand this language. Know how to save a blog to draft and retrieve it before sending. Know how the internet can offer opportunities for communication and collaboration. Know that search results are gathered based on key words and ranked in order of relevance. Know how to use Qrafter app to scan QR codes. Know how QR codes are useful tools to present data and information.	Know how search results are selected.	Know the names of devices on a network. Be able to explain the purpose of devices on a network. How computer networks can provide multiple services	Use and create QR codes. Be able to explain what the internet is. Be able to explain how the internet provides access to the World Wide Web

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">E-Safety</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Disciplinary</p>	<p>To what games/apps are appropriate for my age.</p> <p>I know who to speak to if I feel worried about anything online.</p>	<p>Know what to do and who to go to if they see /hear something that makes them feel sad, embarrassed or upset.</p> <p>I can describe what information I should not put online without asking a trusted adult first.</p> <p>I can describe how to behave online in ways that do not upset others and can give examples.</p> <p>I can use the internet to find things out.</p> <p>I can explain rules to keep us safe when we are using technology both in and beyond the home.</p> <p>I can explain why I should always ask a trusted adult before I share any information about myself online.</p>	<p>I can give examples of how I might use technology to communicate with others I don't know well.</p> <p>I know who to talk to if I think someone has made a mistake about putting something online.</p> <p>I can give examples of bullying behaviour and how it could look online.</p> <p>I can describe and explain some rules for keeping my information private.</p> <p>I can describe why other people's work belongs to them.</p>	<p>I can explain how I can represent myself in different ways online.</p> <p>I can recognise I need to be careful before I share anything about myself or others online.</p> <p>I know who I should ask if I am not sure if I should put something online.</p> <p>I can explain what bullying is and can describe how people may bully others.</p> <p>I can explain why spending too much time using technology can sometimes have a negative impact on me.</p> <p>I understand and can give reasons why passwords are important.</p> <p>I can explain why copying someone else's work from the internet without permission can cause problems.</p>	<p>I can explain how my online identity can be different to the identity I present in 'real life'.</p> <p>I can give examples of how to be respectful to others online.</p> <p>I can describe how others can find out information about me by looking online.</p> <p>I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).</p> <p>I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online.</p> <p>I can identify times or situations when I might need to limit the amount of time I use technology.</p> <p>I can describe strategies for keeping my personal information private, depending on context.</p>	<p>I can demonstrate responsible choices about my online identity, depending on context.</p> <p>I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/our fault.</p> <p>I can describe ways that information about people online can be used by others to make judgments about an individual.</p> <p>I can evaluate digital content and can explain how I make choices from search results.</p> <p>I can explain what is meant by 'being sceptical'. I can give examples of when and why it is important to be 'sceptical'.</p> <p>I can explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing.</p> <p>I can give examples of content that is permitted to be reused.</p>	<p>I can describe ways in which media can shape ideas about gender.</p> <p>I can identify messages about gender roles and make judgements based on them.</p> <p>I can challenge and explain why it is important to reject inappropriate messages about gender online.</p> <p>I can demonstrate how I would support others (including those who are having difficulties) online.</p> <p>I can describe some simple ways that help build a positive online reputation.</p>
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<b>Substantive</b>		<p>I can explain why work I create using technology belongs to me.</p>	<p>I can explain how other people's identity online can be different to their identity in real life.          I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).          I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.</p>	<p>I can give examples of technology specific forms of communication (e.g. emojis, acronyms, text speak).          I can explain what autocomplete is and how to choose the best suggestion.          I can explain how the internet can be used to sell and buy things.</p>	<p>I can describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites)          I can explain how internet use can be monitored.</p>	<p>I can explain how to block abusive users; I can explain how I would report online bullying on the apps and platforms that I use.          I can describe ways technology can affect healthy sleep and can describe some of the issues.</p>	<p>I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me.          I can explain how search engines work and how results are selected and ranked.          I can identify, flag and report inappropriate content.</p> <p>I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.          I can describe simple ways to increase privacy on apps and services that provide privacy settings.</p>
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