



## Computing within The Dales Federation.

Our curriculum is designed to develop each child within mixed year classes.

As such, teachers cover skills from a range of year groups each year, developing each child progressively from their individual starting points. This allows children to revisit and secure learning, moving learning from working memory to long-term memory.

	Knowledge, Understanding & Key Skills			Key Vocabulary
	Online Safety and Digital Literacy <i>see <a href="#">Education for a Connected World</a></i>	Information Technology	Computer Science	
<b>N</b>	<ul style="list-style-type: none"> <li>I can name and use technology in my house. Ensure children are given opportunity to send in evidence from home of them identifying and beginning to use technology.</li> <li>I can name and use technology (e.g., laptops, iPads, digital cameras) in role play. Ensure there are opportunities for children to access digital technology within role play areas.</li> <li>I can recognise and talk about how I can use the internet to find things out. Model how this is done throughout the year following children's interests and experiences.</li> <li>Say "no", "please stop", "I'll tell" or "I'll ask" to somebody who asks me to do something that makes me feel sad or embarrassed in real life. Model this in real-life situations and regularly when accessing the internet.</li> </ul>	<ul style="list-style-type: none"> <li>Take a photograph using an iPad</li> <li>Record a video using an iPad</li> <li>Scan a QR code using an iPad (for example to take them to a games page or video).</li> <li>Recognise some ways in which the internet can be used. Model how this is done throughout the year following children's interest and experiences.</li> </ul>	Control simple electronic toys, for example, remote control cars.	Names of technical appliances used at home and at school, computer, mouse, keyboard, iPad / tablet, photograph, camera, video, record, QR code, technology, batteries, plug, internet, safe, no, please stop, I'll tell, I'll ask, safe, Safer Internet Day
<b>YR</b>	<ul style="list-style-type: none"> <li>Recognise some ways in which the internet can be used to communicate and find information and give examples of how they (might) use technology to communicate with people they know and find out information.</li> <li>Know that they should always ask a responsible adult if they want to use a device and ask for help if they see anything that makes them feel sad, embarrassed, worried or upset.</li> <li>Be able to identify some simple examples of their personal information (e.g. name, address, age,) and describe the people they can trust and can share this with.</li> <li>Identify some ways that people can put information on the internet.</li> <li>Describe some ways that some people can be unkind online and can offer examples of how this can make others feel.</li> <li>Talk about how they can use the internet to find information and can identify devices that they can use.</li> </ul>	<ul style="list-style-type: none"> <li>Play on a touch screen game and use computers/keyboards/mouse in role play</li> <li>Type letters with increasing confidence using a keyboard or tablet.</li> <li>Take a photograph and use it in an app, for example, to create a simple digital collage.</li> <li>Record and play a video</li> <li>Use a painting app and explore the paint and brush tools</li> <li>To scan a QR code.</li> </ul>	<ul style="list-style-type: none"> <li>Follow simple algorithms and spot patterns</li> <li>Sequence instructions for simple familiar tasks</li> <li>Input a simple sequence of commands to control a digital device with support.</li> </ul>	emoji, emotion, feelings, online, Internet, trusted adult, device, technology, communicate, apps, bully, bullying, search, information, print, tablet, search engine, safe rules, permission, personal information, private, secure, password, belong, own/ ownership, own, create, google, research, Mathematics, phonics play, YouTube, Pic Collage, Play Touch screen, Paint, Type, Purple Mash, Beebots, forwards, backwards, turn, left, right, space, mat, control, pattern, sequence, command, algorithm, program

	<ul style="list-style-type: none"> <li>Identify rules that help keep us safe and healthy in and beyond the home when using technology and can give some examples.</li> <li>Know that work they create belongs to them and can name their work so others know it belongs to them.</li> </ul>			
<b>Y1</b> <div style="border: 1px solid black; padding: 2px; width: fit-content;">Builds on last year's skills</div>	<ul style="list-style-type: none"> <li>Know that the internet is accessed all over the World and know some devices are connected to the internet.</li> <li>Know that they should always ask a responsible adult if they want to use a device and ask for help if they see anything that worries them.</li> <li>Know what personal information is and that they should never share this without asking an adult they know first.</li> </ul> <ol style="list-style-type: none"> <li>With support from an adult be able to find information on the internet.</li> </ol>	<ul style="list-style-type: none"> <li>Be able to log onto a computer or use a QR code or share work with Airdrop to evidence work on an iPad or tablet</li> <li>Be able to navigate around the screen with a mouse or touchpad</li> <li>Know how to type text using space bar for separate words to create something meaningful</li> </ul> <ol style="list-style-type: none"> <li>Be able to independently find and use an app on a tablet for instance to take and view a video or photograph</li> </ol>	<ul style="list-style-type: none"> <li>Know which button on a device represents which action and use these with successfully e.g., <b>Beebot</b></li> <li>Know how to program a robot to follow simple sequence of instructions (1- 2 turns)</li> <li>Make a simple sequence of instructions / algorithm</li> <li>Be able to make simple predications about an algorithm and a program. <b>The Beebot will go...</b></li> </ul> <ol style="list-style-type: none"> <li>Be able to change (debug) the program to improve the route</li> </ol>	Technology, permission, screen, apps, information, website, tablet/ iPad, laptop, safety, device, google, search engine, Messenger, communication, apps, online, unkind, safe, safety bullying, social media, communicate, Facebook, Instagram, Twitter, apps, internet, trusted adult stranger, emotions, feelings, trust, help, technology, permission, private, safety, device, information, password, symbol, secure, offline, email, communicate, email address, subject, kin, fact, research, information, ownership, copyright, Google, Swiggle, safari, home, camera, record, save, upload, microphone, video, screen, image, order, screen, save, monitor, keyboard, mouse, log in, username, start, left click, log in, username, paint, brush, shape, fill, text, type, spacebar, backspace, print, Beebot, algorithm, forwards, backwards, turn left, turn right, debug, program, PurpleMash, Mathletics.
<b>Y2</b> <div style="border: 1px solid black; padding: 2px; width: fit-content;">Builds on last year's skills</div>	<ul style="list-style-type: none"> <li>Know devices that enable direct communication between people through images and text.</li> <li>Know what personal information is and that they should never share this with anyone they don't know and without asking an adult they know first.</li> <li>Know that they should tell a trusted adult if they are upset or worried about anything on a device.</li> <li>With support be able to use a safe search engine e.g., <b>swiggle</b></li> </ul>	<ul style="list-style-type: none"> <li>Be able to save, retrieve and print work <b>PC or Tablet</b></li> <li>Know how to type and format text including basic punctuation and capital letters <b>Any suitable software</b></li> <li>Be able to confidently use pointing device <b>Mouse, Touchpad</b></li> <li>Be able to add and create simple images</li> <li>Be able to combine simple text and graphics, for instance create a poster for a purpose <b>Any suitable software</b></li> </ul>	<ul style="list-style-type: none"> <li>Know how to program a robot to achieve set goal (sequence of 6-7 instructions: maze, point collecting)</li> <li>Begin to use block programming e.g., <b>Scratch Junior (Alex, Daisy Dino)</b> to complete a simple program.</li> <li>Be able to debug more complex problems e.g., a route on a <b>Beebot / Bluebot / Probot/ Alex / Logo etc...</b> maze.</li> </ul>	Technology, permission, screen, apps, information, website, tablet/ iPad, laptop, safety, device, google, search engine, monitor, keyboard, mouse, log in, username, password, start, google, Swiggle, Safari, type, spacebar, backspace, save, print, copy, paste, image, search, results, webpage, keywords, online, research, fact, information, website, auto complete, ownership, copyright, device, personal, private, sharing, Internet, responsible adult, trust, help, password, symbol, secure, Messenger, communication, communicate, unkind, safe, bullying, email, email address, subject, Start, edit, text box, video, presentation, slide, edit, format, insert, upload, title, transition, animation, paint, left click, brush, shape, fill, text, auto shape, lines, clipart, Beebot, Probot, algorithm, forwards, backwards, turn left, turn right, debug, program, algorithm, debug, programming, block, coding, sprite/icon/turtle, repeat, sequence/ procedure, PurpleMash, Mathletics.
<b>Y3</b> <div style="border: 1px solid black; padding: 2px; width: fit-content;">Builds on last year's skills</div>	<ul style="list-style-type: none"> <li>Know that some people on the internet should not be trusted</li> <li>Know that concerns about what they see on-line should be reported to a trusted adult</li> <li>Create and use a simple password</li> <li>Use a Search engine to find information given key words</li> <li>Know which websites are useful and begin to understand all might not be trustworthy.</li> <li>Be able to log in and out of websites used at school</li> <li>Know that using technology can sometimes be inappropriate</li> </ul>	<ul style="list-style-type: none"> <li>Be able to log in to computer system as themselves and can find their documents (personal drive)</li> <li>Know how to open shared documents and pictures.</li> <li>Know how to use software to create a simple brochure or poster. <b>Publisher or Pages</b></li> <li>Know how to sequence and add to slides to make a simple presentation <b>Keynote, PowerPoint, iMovie</b></li> <li>Create a meaningful document that contains both pictures and text</li> </ul>	<ul style="list-style-type: none"> <li>Be able to use a block program (<b>Scratch Jun, Scratch, Microbit Blocks</b>) to make a simple programme using sequencing and timing.</li> <li>Inputs sets of instructions according to programming language and environment (<b>Logo, Scratch Jnr, Microbit etc.</b>)</li> <li>Use repeat loops for instance to create a program to draw regular 2D shapes (<b>Logo, Scratch</b>)</li> <li>Independently be able to debug basic mistakes</li> <li>Begin to use conditionals – If I click here then this happens...<b>Scratch Junior, Scratch, Microbit</b></li> </ul>	Opinion, fact, validity, trustworthy, positive, negative, avatar, profile, identity, online, internet, privacy, security, protect, private, personal, stranger(s), dangerous, post (online), share (online), information, location, safety, secure / security, search engine, autocomplete, website(s), online, ownership, copyright, plagiarism, credit, author, emoji, acronym, interpretation, symbolise, alter, expression, respect, responsible, email, sender, address, font, size, spell check, screen time, health, wellbeing, devices, technology, bullying, cyberbullying, social media, fake, false, true, trust,

<p><b>Y4</b></p> <p>Builds on last year's skills</p>	<ul style="list-style-type: none"> <li>• Know that pictures and text share on-line can end up with strangers</li> <li>• Reliably know what to do if they are exposed to unpleasant materials on any device</li> <li>• Know that having a balance of online and offline activities is important.</li> <li>• Reliably uses a more complex password to access resources.</li> <li>• Know what the key words are to enter into a Search engine to find information they want.</li> <li>• Can select useful websites from the results of a search.</li> </ul>	<ul style="list-style-type: none"> <li>• Be able to save a document in a shared folder and retrieve this to continue working on it. <b>Computer. On an iPad work could be shared by Airdrop or equivalent.</b></li> <li>• Be able to organise their personal folder effectively <b>for instance by organising work into folders for each year at school</b></li> <li>• Know how to change font size and style; include shapes and backgrounds and to use the Spellcheck function</li> <li>• To be able to use sequence to create an effective presentation or video <b>Keynote, PowerPoint or iMovie.</b></li> <li>• Be able to deliver a simple presentation to their peers</li> </ul>	<ul style="list-style-type: none"> <li>• Be able to use a program to sequence, use conditionals and use a variety of inputs and outputs (<b>Scratch- steer an object by using keys /Microbit – show an image when shaken</b>)</li> <li>• Be able to explain how their program works <b>for instance by annotating a printout</b></li> <li>• Be able to modify their program and be able to predict the effects of any changes</li> <li>• Know how to break sets of instructions into short steps to achieve goal. <b>For instance, drawing repeated squares to make a pattern,</b></li> </ul>	<p>password(s), search engine, internet, laws online, communication, friend(s), social, collect, store, fields, file, pictures, text, sort, database, branch, sort, classify, copy, paste, save, crop, resize, orientate, autoshape, text, text box, borders, font, PowerPoint/ Keynote, font, animation, insert, copy, paste, transition, save, edit, online, safety, stranger, cyber-bullying, communication, iMovie, edit, titles, timeline, transition, animation, sound, software, edit, present , caps lock, shift, edit, font size/type, record, sound, produce, background, script, shoot, sprite, program, code, draw, sensing, variable, operations, debugging, rotate, procedure.</p>
<p><b>Y5</b></p> <p>Builds on last year's skills</p>	<ul style="list-style-type: none"> <li>• Know the risks posed to them by using social media, including understanding that people may not be who they say they are.</li> <li>• Know that it is irresponsible to share images of friends on-line without their permission.</li> <li>• Know that a balance of online and offline activities is important to maintain good health.</li> <li>• Know how to report concerns on-line.</li> <li>• Effectively use a search engine to find multiple criteria using AND/OR to refine searches</li> <li>• Know how to compare information from different websites and know that some sites may show bias</li> </ul>	<ul style="list-style-type: none"> <li>• To be able to share their work from their personal folder to work collaboratively with others.</li> <li>• Know how to use software to create and effective poster or leaflet.</li> <li>• Be able to select the best program for the task.</li> <li>• Using software know how to add data into a prepared spreadsheet to answer simple questions. <b>For instance, using Excel</b></li> <li>• Independently, prepare an effective presentation to show their learning to others which includes some elements of timing or sequence. <b>For instance, in Keynote, PowerPoint, iMovie</b></li> </ul>	<ul style="list-style-type: none"> <li>• Use customisation to change a working program to change its effect for instance <b>backgrounds and sprite in scratch</b>)</li> <li>• Uses loops to achieve goals (<b>Scratch – shapes, letters</b>)</li> <li>• Uses variables, conditional sentences (when/then), external triggers and loops to achieve set goals (<b>creating game in Scratch, interactive slides in PowerPoint or Keynote, for instance, to create an interactive story, creating a game in Kodu with a scoring system, Creating electronic dice with a Microbit</b>)</li> </ul>	<p>Modify, alter, personal, profile, media, gender, inappropriate, publicly, stereotypes, stereotypical, relationships, limits, streaming, live-stream, responsibility, report, inappropriate, information, celebrity, positive, negative, profile, social-media, reputation, content, bully, bullying, bystander, cyberbullying, empathy, target, upstander, addicted, addiction, explanation, content, age-restricted, PEGI, age ratings, suitability, classification, advertising, clickbait, headline, curiosity gap, file, email, inbox, domain names, web-based, collaborate, attachment, organise, out-going, simultaneous, real-time, protocol, spreadsheet, cell, row, column, formula, calculate, format, average (mean), edit, insert, ascending, descending, sort, budget, documentary, film, production, preproduction, post-production, improvise, location, prop, copyright, source, shot, frame, import, export, green-screen, research, plan, design, create, promote, evaluate, present, PowerPoint/Keynote, transitions, hyperlinks, non-linear, fiction, non-fiction, interactive. spreadsheet, cell, row, column, formula, calculate, format, average (mean), edit, insert, ascending, descending, sort, code, debug, pseudocode, sequence, repetition, procedure, variables, logic, reasoning, algorithms, code, debug, pseudocode, sequence, repetition, variables, logic, reasoning, algorithms, Internet, world wide web, browser, online, network, communicate, data, packets, device, search engine, search engine spider, rank algorithm (search engines), evaluate, compare, design, effective, interface, security, html, embed, environment, deconstruct, path</p>
<p><b>Y6</b></p> <p>Builds on last year's skills</p>	<ul style="list-style-type: none"> <li>• Know how to reduce the risks posed by using social media by managing their friends lists and privacy settings.</li> <li>• Be able to maintain a healthy balance of online and offline activities and know that some activities may affect their emotional wellbeing.</li> <li>• Know that it is illegal to post or view 'rude' images of children.</li> <li>• Know that hacking or misusing someone else's account is illegal.</li> <li>• Know that search results can be manipulated by sponsorship and advertising.</li> <li>• Know how to validate information found through searches by checking more than one source.</li> <li>• Know that some news is 'fake.'</li> </ul>	<ul style="list-style-type: none"> <li>• Know how to use the main features of office software to produce suitable documents and presentations for an audience. <b>Microsoft Office or Apple suite or equivalent.</b></li> <li>• Know how to edit a picture. <b>For instance, in Paint.net</b></li> <li>• Know how to create a simple formula in a spreadsheet to work out given mathematical tasks such as adding a set of numbers.</li> <li>• to create and sequence a video, add sound effects, transitions and title/subtitles. <b>iMovie – much harder in Windows software.</b></li> <li>• To be able to use two or more programmes to create a final piece of work. (e.g., edit a picture before inserting into a document).</li> </ul>	<ul style="list-style-type: none"> <li>• Use conditional sentences (when/then) to program objects (<b>Kodu, Scratch, Microbit</b>)</li> <li>• As above but use mathematical expressions when constructing conditionals e.g., trigger winning when (If loops &gt;5 then...)</li> <li>• Be able to explain what a program will do and accurately predict the effect of changes.</li> <li>• Be able to reliably modify existing algorithms and code to change the effect of the program.</li> <li>• Be able to make an efficient program by using an effective algorithm and techniques such as loops and procedures</li> </ul>	<p>Modify, alter, personal, profile, media, gender, inappropriate, publicly, stereotypes, stereotypical, relationships, limits, streaming, live-stream, responsibility, report, inappropriate, information, celebrity, positive, negative, profile, social-media, reputation, content, bully, bullying, bystander, cyberbullying, empathy, target, upstander, addicted, addiction, explanation, content, age-restricted, PEGI, age ratings, suitability, classification, advertising, clickbait, headline, curiosity gap, file, email, inbox, domain names, web-based, collaborate, attachment, organise, out-going, simultaneous, real-time, protocol, spreadsheet, cell, row, column, formula, calculate, format, average (mean), edit, insert, ascending, descending, sort, budget, documentary, film, production, preproduction, post-production, improvise, location, prop, copyright, source, shot, frame, import, export, green-screen, research, plan, design, create, promote, evaluate, present, PowerPoint/Keynote, transitions, hyperlinks, non-linear, fiction, non-fiction, interactive. spreadsheet, cell, row, column, formula, calculate, format, average (mean), edit, insert, ascending, descending, sort, code, debug, pseudocode, sequence, repetition, procedure, variables, logic, reasoning, algorithms, code, debug, pseudocode, sequence, repetition, variables, logic, reasoning, algorithms, Internet, world wide web, browser, online, network, communicate, data, packets, device, search engine, search engine spider, rank algorithm (search engines), evaluate, compare, design, effective, interface, security, html, embed, environment, deconstruct, path</p>