



<p>Intent</p>	<p>To enhance our children’s digital competence and enable them to use computational thinking, whilst exploring and answering the questions, “What does it mean to be digitally literate?” and “How do I keep myself and others safe online?”</p>		
<p>Pupils are enabled to:</p>	<p>Make informed judgements about when and where to use ICT to best effect, and to consider responsibility.</p>		
<p>EYFS By the end of Reception...</p>	<p>KS1 By the end of Year 2...</p>	<p>Lower KS2 By the end of year 4...</p>	<p>Upper KS2 By the end of year 6...</p>
<p>Skills – Understanding & Using a Computer ☑ To start to use and understand different digital devices and also understand you can ‘do things’ on a digital device. ☑ To begin to use a mouse or a touchscreen to make choices. ☑ To recognise parts of a laptop such as a mouse, screen, keypad, numbers and letters. ☑ To begin to understand that ‘things’ information can be saved on a device. E.g. photographs.</p> <p>2. Text, Images & Multimedia ☑ To use a digital device with support to complete a task such as art using a paint program ☑ To choose a digital device to complete a specific task.</p> <p>3. Understanding & Sharing Data ☑ To be able to access content such as images and music with support. ☑ To digitally sort objects into 1 or more groups. ☑ To be able to answer basic questions about digital images. E.g. more or less, descriptions. ☑ To be able to see that there are different things on a digital device such as an image, a video and audio.</p>	<p>Skills – Understanding & Using a Computer ☑ To be able to name different devices correctly. ☑ To explain what basic parts of a laptop are used for – E.g. mouse, keyboard. ☑ To be able to use a password and understand why it is needed. ☑ To understand that you can find information from a website. ☑ To name a range of digital devices, both for input (E.g. mouse, keyboard) and output (E.g. printer, speakers) and begin to understand that a range of devices in everyday life also contain computers. ☑ To being to know how to save work in a certain place.-in their own folder.</p> <p>Text, Images & Multimedia ☑ To use a digital device more independently and begin to complete tasks without support. ☑ To understand that digital content can be changed by editing and to be able to make choices about what to edit. E.g. for a certain effect. ☑ To begin to combine different kinds of media with support. E.g. text and images. ☑ To comment on choices made by peers and be able to make editing suggestions to improve.</p> <p>Understanding & Sharing Data</p>	<p>Skills – Understanding & Using a Computer ☑ To use a range of digital devices with growing confidence – typing, saving, keyboard knowledge. ☑ To be able to name work and to save work to a specific place with growing confidence. ☑ To start to understand what a network of computers is – i.e. the school network. ☑ To explore a range of programs with growing confidence and accuracy. E.g. Word, PPT, Scratch and other coding programs. ☑ To use the different clicks on a mouse/keypad with growing understanding and confidence. ☑ To understand the need for secrecy with individual passwords.</p> <p>Text, Images & Multimedia To create, edit and evaluate their own digital work and that of their peers to make improvements. ☑ To find and save work with growing accurately and confidence. ☑ To design and create digital content for a specific purpose. Such as a poster for a topic or science. ☑ To use a widening range of tools to edit and enhance media. ☑ To collect, organise and present data using a range of media. E.g. Word and PPT. ☑ To being to understand copyright.</p>	<p>Skills – Understanding & Using a Computer ☑ To confidently use a range of digital devices and programs with good accuracy. ☑ To be able to type confidently. ☑ To know how to use some common keyboard shortcuts. ☑ To understand that computers have different operating systems. E.g. Windows, iOS, Android. ☑ To create, use and remember a strong password and keep it secret. ☑ To accurately save and organise work into folders.</p> <p>Text, Images & Multimedia ☑ To be able to select suitable hardware and software to complete a given task. ☑ To remix and edit existing content, both their own and of others, to create new content. E.g. record music they make, and musical effects. ☑ To think about an audience when creating digital content for a specific purpose. E.g. music for a film to create a particular effect. ☑ To understand the pros and cons of using technology to collaborate with others. ☑ To be aware of different services on the internet and what they do. E.g. email, Skype, IP address. ☑ To evaluate their own content against success criteria and make improvements accordingly.</p>



<p>☑ To be able to collect simple data such as likes/dislikes on a topic.</p> <p>4. Programming & Computational Thinking</p> <p>☑ To begin to learn to explore a digital program.</p> <p>☑ To understand that we control computers. To recognise the success or failure of an action and to repeat the action when necessary to achieve success.</p> <p>☑ To be able to input a short sequence of simple instructions (with some support) to control a device.</p> <p>☑ To try different ways to achieve a goal.</p> <p>5. Online Safety & Digital Literacy</p> <p>☑ To begin to be aware that information on a computer can be public or private.</p> <p>☑ To understand that some online content is inappropriate, be able to recognise this and understand the need to tell an adult.</p>	<p>☑ To identify an object by asking yes/no questions.</p> <p>☑ To recognise charts, pictograms and tables, understand that they contain information and be able to explain the information with growing independence. To collect data on a topic (such as a traffic survey) and be able to present this information in simple charts.</p> <p>☑ To begin to recognise that you can get the same information from different formats. E.g. words and video.</p> <p>4. Programming & Computational Thinking</p> <p>☑ To understand that we control computers when we give them instructions.</p> <p>☑ To understand that humans make computers and the programs and apps on them.</p> <p>☑ To create a simple program. (control a floor robot)</p> <p>☑ To understand and create a simple algorithm. (a set of rules to be followed in calculations or other problem-solving operations on a computer)</p> <p>☑ To begin to understand that the order of instructions in an algorithm is important. (you have to do things in a set order for a program to work)</p> <p>To begin to learn how to debug an error in a simple algorithm or programme (E.g. send a floor robot the wrong way.)</p> <p>☑ To begin to evaluate the success of an algorithm or program and identify/correct any errors. (E.g. using floor robots.)</p> <p>5. Online Safety & Digital Literacy</p> <p>☑ To understand that digital content can be shared online.</p>	<p>3. Understanding & Sharing Data</p> <p>☑ To begin to understand that different programs are required for different kinds of data. E.g. text and number.</p> <p>☑ To understand that there is a difference between data and information.</p> <p>☑ To begin to understand the benefits of creating data on a computer. E.g. charts and databases.</p> <p>☑ To understand that information can be stored on a computer and shared online. To be able to collect data and create a questionnaire from it.</p> <p>☑ To understand that data can be stored in various ways.</p> <p>☑ To understand what a network of computer is.</p> <p>☑ To understand the difference between a computer, the internet and 'WWW.'</p> <p>Programming & Computational Thinking</p> <p>☑ To be able to change and remix an existing program to create a new outcome. (E.g. change a photograph digitally.)</p> <p>☑ To use repetition to make programs more efficient. (E.g. duplicate, copy & paste in Word/PPT)</p> <p>☑ To use coding in Scratch and other programs and to be able to predict an outcome.</p> <p>☑ Create a program using a range of events/inputs to control what happens.</p> <p>Online Safety & Digital Literacy</p> <p>☑ To understand that there are a variety of ways to search for information and that what we type when we search can give us different outcomes.</p> <p>☑ To understand that you can check information is true by looking at different sources.</p>	<p>Understanding & Sharing Data</p> <p>☑ To begin are required for different kinds of data. E.g. text and number.</p> <p>☑ To understand the difference between data and information.</p> <p>☑ To understand the benefits of creating data on a computer. E.g. charts and databases.</p> <p>☑ To understand that information can be stored on a computer and shared online.</p> <p>☑ To understand that data can be stored in various ways.</p> <p>☑ To understand that search engines store information.</p> <p>Programming & Computational Thinking</p> <p>To recognise that different solutions exist for the same program and there are different ways to achieve the same outcome.</p> <p>☑ To predict what could happen in a program when the input changes.</p> <p>☑ To create programs using 'repeat until' loops.</p> <p>Online Safety & Digital Literacy</p> <p>☑ To understand copyright and what can be used with/without permission and to know where to find copyright free content. E.g. images and audio.</p> <p>☑ To be able to demonstrate responsible use of online services and sites, recognise inappropriate content and behaviour and know a range of ways to report concerns.</p> <p>☑ To be able to evaluate websites of reliability of information and authenticity.</p> <p>☑ To understand, and be able to create, a strong password and to understand why this</p>
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	<ul style="list-style-type: none"> ☑ To understand 'personal information' and what information must be kept private. ☑ To understand that if they have any worries, they must tell an adult. ☑ To begin to understand copyright and that digital content belongs to the person who first created it. E.g. a photograph or a song. ☑ To understand that we might need to ask permission to use digital content that belongs to somebody else. E.g. a photo or a song. ☑ To understand why we need and use passwords and that they must be kept private. <p>To understand the need to be as kind and thoughtful online as in the real world.</p> <ul style="list-style-type: none"> ☑ To understand that spending a long time on a computer can be unhealthy. ☑ To know that not everything online is true. ☑ To understand that content online cannot always be deleted. 	<ul style="list-style-type: none"> ☑ To understand what unacceptable content/contact online is and know where to go for help. ☑ To understand the need for private personal information. ☑ To understand why games, apps, websites and films have different ratings. ☑ To understand the need to have permission to use digital content created by others and that there is a 'Creative Commons' license that can give permission. ☑ To be aware that some people can lie online and not be who they say they are. ☑ To understand the need for a strong password and that it must be kept secret 	<p>is important at school, home and in the wider world.</p> <ul style="list-style-type: none"> ☑ To understand that passwords can be stolen and possible consequences of this. ☑ To become increasingly aware of algorithms that track online activities and that they target people with advertising and information. ☑ To understand that there are laws around the purchase of games, images, music and what is written online
Vocabulary	As previous plus	As previous plus	As previous plus
<p>Coding and programming Equipment, program, buttons, movement, instructions, robots, patterns</p> <p>Online Safety Choices, internet, website, safe, share</p> <p>Handling Data Collect, photos, count, organise</p> <p>Multimedia Sound and Motion Screen, mouse, image, keyboard, paint, videos, words</p> <p>Multimedia Text and Images</p>	<p>Coding and programming Action, algorithm, bug, character, code block, code design, command, debug, design mode input, object, properties, repeat, scale, timer, when clicked, when key, instruction, order, program, turn, left, right, clockwise, blocks, anticlockwise, sequence, project, repeat, repeat forever, invisible, grow, shrink.</p> <p>Online Safety Log in, username, password, log out, my work, avatar, notification,</p>	<p>Coding and programming Action, alert, algorithm, code design, command, control, debug, event, flowchart bug, function, input, object, output, repeat, selection, simulation, tabs, sequence, timer, variables, decompose, decomposing, logical sequence, sprite, block, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable</p> <p>Online Safety</p>	<p>Coding and programming Action, alert, algorithm, code design, command, control, debug, event, flowchart bug, function, input, object, output, repeat, selection, simulation, tabs, sequence, timer, variables, Flowchart, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, commentary, consequence, debug, program, Kodu, world, object, tool palette, program environment, smooth, flatten, raise</p>



<p>Screen, mouse, image, keyboard, paint, words, word banks</p> <p>Technology in Our Lives</p> <p>Technology, share, create, internet, purpose, tool</p>	<p>topics, tools, save, Search, display board, internet, sharing ,email, attachment, digital footprint, Safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, key, question, tell, safe, share, stranger, danger</p> <p>Handling Data</p> <p>Pictogram, digital, sound, photograph, video, capture, magnified, question, collection, chart, save, retrieve.</p> <p>Multimedia Sound and Motion</p> <p>Commands, add sound, sound bank, effect, template, animation, document, finger typing.</p> <p>Multimedia Text and Images</p> <p>Paint, colour, brush, tools, settings, undo, redo, text, image, size, poster, launch, application, software, window, minimise, restore, size, move, screen, close, click, drag, log on, log off, keyboards, keys, mouse, click, button, double click, drag, present</p> <p>Maze Explorers</p> <p>Direction, challenge, arrow, undo, rewind, forward, backwards, right turn, left turn, debug, instruction, algorithm</p> <p>Spreadsheets</p> <p>Backspace key, copy and paste, columns, cells, count tool, delete key, equals tool, image toolbox, lock tool, move cell tool, rows, speak tool, spreadsheet</p> <p>Animated Story Books</p> <p>Animation, e-book, font, file, sound effect, display board</p> <p>Making music</p> <p>Bpm, composition, digitally, instrument, music, sound effects, soundtrack, tempo, volume</p> <p>Presenting Ideas</p>	<p>blog, concept map, username, website, webpage, spoof website, PEGI rating, Computer virus, cookies, copyright, digital footprint, email, identity theft, malware, phishing, spam, Safe, meet, accept, reliable, personal, internet, world wide web, communicate, message, social media, profiles, cyberbullying/bullying, account, private, public</p> <p>Handling Data</p> <p>Google Docs, insert, table, questioning, database, construct, contribute, recording, data logger, database, inaccurate</p> <p>Multimedia Sound and Motion</p> <p>Audio, sound, video, movie, embed, link, file format, animate, animation, still image, stereoscope, flip book, frame, onion skinning, loop, frame rate, record, stop, play, stop motion, stop frame.</p> <p>Multimedia Text and Images</p> <p>Draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, plan, link, image, object, link, hyperlink, minimise, split, create, organise, file, folder, close, exit, search, print, password, screenshot, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck</p> <p>Spreadsheets</p> <p>Advance mode, copy and paste, columns, cells, delete key, equals tool, spin tool, move cell tool, rows, spreadsheet</p> <p>Touch-typing</p> <p>Communication, email, compose, send, attachment, formatting, report to the teacher, password, address book, save to draft</p> <p>Branching databases</p>	<p>Online safety</p> <p>Online safety, smart, rules, reputable, encryption, shared image, plagiarism, citations, reference, bibliography, screen time, Spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, reporting, anonymous, victim, fraud/fraudulent, policy, personal</p> <p>Handling Data</p> <p>spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending.</p> <p>Multimedia Sound and Motion</p> <p>record, edit, skip, waveform, input, output, record, edit, play podcast, digital content, downloadable, backing track, voiceover, mute, gain, production, post-production, documentary, project, evaluation, screening, ceremony, upload.</p> <p>Multimedia Text and Images</p> <p>Window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide.</p> <p>Spreadsheets</p> <p>Average, advance mode, copy and paste, columns, cells, charts, dice, formula, formula wizard, random tool, rows, move, cell tool, spreadsheet, timer, charts, equals tool, formula, formula wizard, move cell tool, spin tool</p> <p>Databases</p> <p>Avatar, binary tree, charts, collaborative, data, database, find, record, sort, group and arrange, statistics and reports, table</p> <p>Audience, blog, blog page, blog post, collaborative, icon</p>
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	<p>Concept map, quiz, presentation mode, animated, non-fiction, narrative, audience</p>	<p>Branching database, data, database, Question</p> <p>Graphing Graph, field, data, bar chart, block graph, line graph</p> <p>Animation Animation, background, frame, flipbook, onion skinning, stop motion, play, sound, video clip</p> <p>Effective searching Easter egg, internet, internet browser, search, search engine, spoof website, website</p> <p>Hardware investigators Motherboard, CPU, RAM, Graphics card, network card, monitor, speakers, keyboard and mouse</p> <p>Microsoft Powerpoint Animation, audio, design template, entrance animation, font, media, presentation, presentation program, slide, slideshow, stock image, text box, text formatting, transition</p>	<p>Game creator Animation, computer game, customise, evaluation, image, instructions, interactive, screenshot, texture, perspective, playability</p> <p>Effective searching Audience, collaboratively, concept, concept map, connection, idea, node, thought, visual</p> <p>Networks Internet, world wide web, network, router, local area network, wide area network, network cables, wireless</p> <p>Quizzing Audience, collaboration concept map, database, quiz</p> <p>Binary Base 10, base 2, binary, bit, byte, decimal, gigabyte, denary, digit, machine code, integer, kilobyte, switch, megabyte, nibble, switch, transistor, variable</p> <p>Microsoft Word Copyright, cursor, document, font, inbuilt styles, merge cells, paragraph formatting, readability, template, text formatting, text wrapping, word art, word processing tool</p> <p>Microsoft Excel Alignment, calculate, cell, cell reference, chart, column, formula, function, range, row, spreadsheet, style, sum, text wrapping, value, workbook</p>
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