



Computing – Key Knowledge

	Digital Citizenship	Digital Literacy	Computer Science	Information Technology	Consolidation Project for Digital Literacy
EYFS	<p>Within the EYFS curriculum the 'Technology' strand has been removed from 'Understanding the World' and has not been replaced with any updated guidance. However, computing and technology are still vitally important subjects to teach to Foundation children. Having an awareness of computing within the curriculum ensures that children enter Year 1 with a strong foundation of knowledge. We live in a technological world and there is no escape from the reality that technology is integrated into the lives of young children. Children have an awareness of computer literacy and all-important e-safety.</p> <p>We aim to encourage, challenge and enable our children to become well-balanced and resilient citizens in today and tomorrow's world.</p>				
Year 1	<p>I can recognise that there may be people online who could make me feel sad, embarrassed or upset and can give examples of when and how to speak to an adult I can trust.</p> <p>I can describe what information I should not put online without asking a trusted adult first</p> <p>I can give examples of when I should ask permission to do something online and explain why this is important.</p> <p>I can describe and know how to behave online in ways that do not upset others and can give examples</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 use the internet with adult support to communicate with people I know</p>	<p>I can type a simple sentence on the screen, making use of a word bank</p> <p>I can format my typing in a number of ways (size, colour, font)</p> <p>I can use the main keys for typing e.g., shift, space bar, full stop</p> <p>I can type simple sentences using the correct format (Capital letters, space and full stop)</p> <p>I can use the 'undo' icon to fix a mistake</p>	<p>I can plan a simple algorithm</p> <p>I can command a Beebot to go straight forwards or backwards</p> <p>I can debug a simple algorithm that is causing an unexpected outcome</p> <p>I can predict if a simple algorithm will work</p>	<p>I can log on and off the school network using my individual username and password</p> <p>I can give simple examples of how to find information (e.g., search engine, browsers, voice activated searching)</p> <p>I can explain why work I create using technology belongs to me</p> <p>I can save my work (Purple mash) so that others know it belongs to me (e.g., filename, name on content)</p>	<p>I can add text to a page.</p> <p>I can save the page I have created</p> <p>I can open previously saved work</p> <p>I can add sound/ a voice recording/music to the page on Purple Mash</p> <p>I can add a background</p> <p>I can change the font size and style</p>

	Key Vocabulary: Digital citizen, communication, personal information, permission, safe, trusted adult, online	Key Vocabulary: Digital Literacy, undo, keys, mouse, font, space, text, keyboard	Key Vocabulary: Computer Science, algorithm, debugging, forwards, backwards, predict	Key Vocabulary: Information technology, internet, browser, search engine, file, save and applications	Key Vocabulary: Save, recording, font, background
	Digital Citizenship	Digital Literacy	Computer Science	Information Technology	Consolidation Project for Digital Literacy
Year 2	<p>I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help. (Butterfly feeling)</p> <p>I can explain why I have a right to say 'no' or 'I will have to ask someone'. I can explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online</p> <p>I can explain simple guidance for using technology in different environments and settings, e.g., accessing online technologies in public places and the home environment.</p> <p>I can explain what bullying is, how people may bully others and how bullying can make someone feel and I can give examples of bullying behaviour and how it could look online</p>	<p>I can use the return/enter key to insert relevant line breaks</p> <p>I can save an image from the internet rather than using copy & paste</p> <p>I can insert a basic table</p> <p>I can decide which page orientation would best suit my work. e.g., portrait to landscape</p>	<p>I can give and follow instructions, which include direction and turning command – several in order</p> <p>I can plan use logical reasoning to predict outcomes</p> <p>I can create a program that contains several commands for a device or software programme</p> <p>I can debug a program independently that has caused an unexpected outcome</p>	<p>I can use simple keywords in search engine. 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)</p> <p>I can log on and off the school network using my individual username and password and save my work to the school network</p> <p>I can explain how some people may have devices in their homes connected to the internet and give examples (e.g., lights, fridges, toys, televisions)</p> <p>I can explain what voice activated searching is and how it might be used, and know it is not a real person (e.g., Alexa, Google Now, Siri)</p>	<p>I can add appropriate clip art and photos</p> <p>I can collect, organise and present data and information in digital content</p> <p>I can create digital content to achieve a given goal by combining software packages.</p>
	Key Vocabulary: Digital citizen, bullying, guidance, online technology, accept, trusted adult, communicate	Key Vocabulary: Digital literacy, orientation, portrait, landscape, table, save, return/enter, line break, mouse, keyboard	Key Vocabulary: Computer Science, program, algorithm, debugging / outcome, software	Key Vocabulary: Information technology, device, internet, search engine, voice activation, physical, wireless and mobile, school network	Key Vocabulary: Clipart, data, digital content, combining software
	Digital Citizenship	Digital Literacy	Computer Science	Information Technology	

<p>Year 3</p>	<p>I can explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with</p> <p>I can explain how someone's feelings can be hurt by what is said or written online and I can describe ways that some people can be unkind online</p> <p>I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g., age restricted gaming or web sites)</p> <p>I can explain why spending too much time using technology can sometimes have a negative impact on anyone, e.g. mood, sleep, body, relationships and I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged</p>	<p>I can use bullet points, speech bubbles, auto shapes and text boxes</p> <p>I can format wrapping/layout of text boxes and images in word</p> <p>I can use the format tab to alter word art to enhance my work</p> <p>I can use a variety of table tools (merge cells, fill, columns etc.)</p> <p>I can create a folder to save my work in.</p> <p>I can give a file a name to identify it</p> <p>I can transfer these skills into PowerPoint</p>	<p>I can design and write (sequence) a simple program on Logo to produce a line drawing of a 2D shape</p> <p>I can solve problems by decomposing them into smaller part</p> <p>I can detect and debug errors in my sequence</p> <p>I can predict how a change in a sequence may impact on the outcome of a program</p>	<p>I can demonstrate how to use key phrases in search engines to gather accurate information online</p> <p>I can explain what autocomplete is and how to choose the best suggestion</p> <p>I can explain how the internet can be used to sell and buy things</p> <p>I can describe how connected devices can collect and share anyone's information with others</p>	<p>I can add text and format it</p> <p>I can change designs on Power Point slides</p> <p>I can insert a new slide, pictures, video and audio</p>
----------------------	---	---	--	---	--

	<p>Key Vocabulary: Digital citizen, trust, feelings, personal, impact, restrictions</p>	<p>Key Vocabulary: Digital Literacy, transfer, PowerPoint, merge cells, columns, save, file, folder, format, wrapping, text boxes,</p>	<p>Key Vocabulary: Computer Science, program, design, debug, algorithm, detect, decompose</p>	<p>Key Vocabulary: Information technology, search engine, digital assistant, connected devices, autocomplete</p>	<p>Key Vocabulary: Slides, insert, audio, Power Point</p>
	Digital Citizenship	Digital Literacy	Computer Science	Information Technology	Consolidation Project for Digital Literacy

Year 4	<p>I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this</p> <p>I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours</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 explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation)</p> <p>I can explain how using technology can be a distraction from other things, in both a positive and negative way and I can identify times or situations when someone may need to limit the amount of time, they use technology e.g. I can suggest strategies to help with limiting this time</p>	<p>I can enter a basic mathematical formula into Excel and can add basic mathematical formulas</p> <p>I can use SUM to calculate the total of a set of numbers in a range of cells</p> <p>I can change the look of a spreadsheet by using different formats e.g., text styles, colour, number format</p> <p>I can insert and delete columns and rows in a spreadsheet</p> <p>I can use spreadsheets to create a graph</p> <p>I can interpret graphs of data collected from sensors</p>	<p>I can use repeats in programs confidently</p> <p>I can independently sequence code to make my own program</p> <p>I can detect and debug errors in algorithms and programs.</p> <p>I can explain why it is important to use the repeat function in a particular place in my sequence</p>	<p>I can describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g., social media, image sites, video sites)</p> <p>I can explain what is meant by fake news e.g., why some people will create stories or alter photographs and put them online to pretend something is true when it isn't</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 explain that technology can be designed to act like or impersonate living things and describe what the benefits and the risks might be and I can describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure</p>	<p>I can create a simple animation using 2Animate</p> <p>I can use the Onion Skin tool to create an animated image</p> <p>I can use backgrounds and sounds to make more complex and imaginative animations</p>
	<p>Key Vocabulary: Digital citizen, technology, bullied, media, respect, content, identity</p>	<p>Key Vocabulary: Digital Literacy, graph, sensors, SUM, Excel, formula, rows, columns, spreadsheet</p>	<p>Key Vocabulary: Computer science, program, repeat, debug, sequence, algorithm, command</p>	<p>Key Vocabulary: Information technology, internet, false information, fake news, in app purchase, advertising, impersonate</p>	<p>Key Vocabulary: Animation, onion skin, frames</p>
	Digital Citizenship	Digital Literacy	Computer Science	Information Technology	Consolidation Project for Digital Literacy

Year 5	<p>I can explain how someone can get help if they are having problems and identify when to tell a trusted adult</p> <p>I can explain that there are some people I communicate with online who may want to do me or my friends any harm. I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences</p> <p>I can describe the helpline services which can help people experiencing bullying, and how to access them (e.g., Childline / CEOP / The Mix) and I can explain how to block abusive users</p> <p>I can describe ways technology can affect health and well-being both positively (e.g., mindfulness apps) and negatively. I can describe some strategies, tips or advice to promote health and well-being with regards to technology</p> <p>I can explain how and why some apps and games may request or take payment for additional content and explain the importance of seeking permission from a trusted adult before purchasing</p>	<p>I can select appropriate tools to add emphasis and effect to my work</p> <p>I can review and edit my work and talk about the changes I made</p> <p>I can create a database structure of my own and enter the data</p> <p>I can prepare a data collection form and collect quality information</p> <p>I can use databases to create a graph</p> <p>I can interpret graphs of data collected from a variety of sources</p>	<p>I can plan algorithms and then write a program using the following: commands, sequence, repetition and conditional selection (if, then...)</p> <p>I can detect and debug errors in more complex algorithms and programs</p> <p>I can use selection to create games in which the user must make a choice</p>	<p>I can evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results and I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence</p> <p>I can discuss what it means to save work locally, to a network or to a 'Cloud'</p> <p>I can explain the benefits and limitations of using different types of search technologies e.g., voice-activation search engine. I can explain how some technology can limit the information I aim presented with e.g., voice-activated searching giving one result</p> <p>I can identify ways the internet can draw us to information for different agendas, e.g., website notifications, pop-ups, targeted ads and I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others</p>	<p>I can explore the different viewpoints in 2Design and make whilst designing a building.</p> <p>I can adapt one of the vehicle models by moving the points to alter the shape of the vehicle while still maintaining its form.</p> <p>I can explore how to edit the polygon 3D models to design a 3D model for a purpose.</p>
	<p>Key Vocabulary: Digital Citizen, well-being, strategies, bullying, helplines, support, harm</p>	<p>Key Vocabulary: Digital Literacy, appropriate tools, emphasis, database structure, appropriate graph, sources,</p>	<p>Key Vocabulary: Computer Science, repeat, selection, variable, conditional selection, debug, glitch, algorithm</p>	<p>Key Vocabulary: Information technology, reviews, validity, reliability and evidence, digital content, cloud, network, voice-activated search</p>	<p>Key Vocabulary: Viewpoint, design and make, edit, polygon, Computer Aided Design</p>
	Digital Citizenship	Digital Literacy	Computer Science	Information Technology	Consolidation Project for Digital Literacy

Year 6	<p>I can give examples of how to get help, both on and offline</p> <p>I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not</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 and how to report bullying</p> <p>I can describe common systems that regulate age-related content (e.g., PEGI, BBFC, parental warnings) and describe their purpose</p> <p>I can assess and action different strategies to limit the impact of technology on health (e.g., night-shift mode, regular breaks, correct posture, sleep, diet and exercise)</p>	<p>I can choose, select and use a combination of software to present my work</p> <p>I can suggest why I have chosen my layout and formatting</p> <p>I can review and edit my work and talk about the changes I made</p> <p>I can consider whether my work is suitable for the audience</p> <p>I can interpret graphs of data collected from a variety of sources</p>	<p>I can confidently use events, repeats, selection and variables in a program</p> <p>I can confidently decompose a problem and methodically create a program to solve it, testing and adapting as I go</p> <p>I can evaluate the effectiveness of my programming and suggest improvements</p>	<p>I can suggest what technology might look like in twenty years' time.</p> <p>I can explain how search engines work and how results are selected and ranked, I can explain how to use search technologies effectively</p> <p>I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g., advertising and 'ad targeting' and targeting for fake news)</p> <p>I can describe how and why people should keep their software and apps up to date, e.g., auto updates</p> <p>I can describe simple ways to increase privacy on apps and services that provide privacy settings</p> <p>I can explain what to do if a password is shared, lost or stolen</p> <p>I can demonstrate the use of search tools to find and access online content which can be reused by others</p>	<p>I can use a mobile device to film a short clip</p> <p>I can add titles and credits to my movie to make it clear and sequenced</p> <p>I can add transitions and I can add special effects to make my movie more effective</p>
	<p>Key Vocabulary: Digital Citizen, bullying, screen-grab, PEGI ratings, boundary</p>	<p>Key Vocabulary: Digital Literacy, review, suitable, audience, formatting, combination, software, interpret, sources, data,</p>	<p>Key Vocabulary: Computer science, sequence, repeat, conditional / selection, variables, decompose, debugging, input / output</p>	<p>Key Vocabulary: Information technology, computer networks, password, search engine, influence, manipulation, privacy</p>	<p>Key Vocabulary: Mobile device, clip, , special effects, titles, credits</p>