



## All Hallows Whole School Long Term Plan – Computing

Strands from the N.C.: **Digital Literacy**, **Computer Science** and **Information Technology**.

Sticky knowledge in **bold typeface** (Declarative knowledge is 'I know that...' and Procedural knowledge is 'I know how ...').

Year 1 – 6 <u>Autumn 1: Safe Use</u> (Links have been made to The Education for a Connected World Framework 2020 and the AH PSHE LTP) <u>Autumn 2: The Internet</u>		Year 1 – 6 <u>Spring 1: Coding 1</u> <u>Spring 2: Software and Hardware 1</u>		Year 1 – 6 <u>Summer 1: Software and Hardware 2 Networks</u> <u>Summer 2: Coding 2</u>			
Knowledge	Vocabulary	Knowledge	Vocabulary	Knowledge	Vocabulary	Additional Autumn Term statements:	Vocabulary

Y1	<p>Autumn 1: Safe Use</p> <p><b>I know how to use technology safely and respectfully.</b></p> <p>Project Evolve (Health, Well-being and Lifestyle):</p> <p><b>I can explain rules to keep myself safe when using technology both in and beyond the home.</b></p> <p><b>I know how to keep personal information private.</b></p> <p><i>(Small Steps: To know what personal information is, know what private means and how to keep their personal information private).</i></p> <p>Project Evolve (Privacy and Security):</p> <p><b>I can recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to school, family names).</b></p> <p><b>I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others.</b></p> <p><b>I know how to save learning to a designated private space.</b></p> <p><i>(Small Steps: To know what saving information is, know that there are multiple spaces to save information, the importance of saving in a known space for retrieval)</i></p> <p>Project Evolve (Copyright and Ownership):</p> <p><b>I can save my work under a suitable title or name so that others know it belongs to me (e.g. filename, name on content).</b></p>	<p>Personal Information</p> <p>Trustworthy Adult</p> <p>Technology</p> <p>Digital Device</p> <p>Respect (AH Value)</p> <p>Private Information</p> <p>Online</p> <p>Private Space</p> <p>Save</p>	<p>Spring 1: Coding 1 (Pro-Bots)</p> <p><b>I know that an algorithm for a computer is called a program.</b></p> <p><b>I know that an algorithm is a set of instructions used to solve a problem or achieve an objective.</b></p> <p><b>I know how to interpret what will happen at different stages of a program.</b></p> <p><b>I know how to create a simple program and test it.</b></p>	<p>Go</p> <p>Stop</p> <p>Instructions</p> <p>Choices</p> <p>Bee Bots</p> <p>Code-a-Pillar</p> <p>Pro-Bots</p> <p>Hardware</p> <p>Software</p> <p>Algorithm</p> <p>Code</p> <p>Program</p> <p>Code Snippet</p> <p>Run</p> <p>Test</p> <p>Robots</p>	<p>Summer 1: Software and Hardware 2</p> <p><b>I know some of the uses of IT beyond school.</b></p> <p><b>I know how to make a distinction between objects that use modern technology.</b></p>	<p>Digital Technology</p> <p>Microprocessor</p>	<p><b>I can confidently type words quickly and correctly on a digital device.</b></p> <p><b>I can use the space bar to make space and delete to delete letters/words.</b></p> <p><b>I can make a new line using enter/return.</b></p> <p><b>I can dictate into a digital device more accurately and with punctuation.</b></p>	<p>Touch screen</p> <p>Computer</p> <p>Keyboard</p> <p>Mouse</p> <p>Click Tablet</p> <p>Equipment</p> <p>Space bar</p> <p>Delete</p> <p>Enter/Return</p> <p>Dictate</p> <p>Talking Tin</p>
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	<p>Autumn 2: The Internet</p> <p><b>I know how to use a website.</b></p> <p><i>(Small Steps: Know what a website is, how to access a website from a variety of devices, know the different browsers i.e. Edge, Safari, Chrome).</i></p> <p>Project Evolve (Online Relationships):</p> <p><b>I can give examples of when I should ask permission to do something online and explain why this is important.</b></p> <p><b>I can use the internet with adult support to communicate with people I know (e.g. video call apps or services).</b></p> <p>Project Evolve (Managing Online Information):</p> <p><b>I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching.</b></p> <p><b>I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened.</b></p>	<p>Website Permission Online Internet Content Communication Browser Search Tool Search Engine Swiggle KidRex Apps</p>	<p>Spring 2: Software and Hardware 1</p> <p><b>I know how to create, edit and store purposeful, simple digital content.</b></p> <p><b>I know how to use a camera.</b></p> <p><i>(Small Steps – Know that a camera can record a still/moving image, know that cameras can be stand alone devices or part of a smart device, know how to use a view finder or screen to see image, know how to hold the device without obscuring the image, know how to capture the image clearly)</i></p> <p><b>I know how to record sound and play it back.</b></p>	<p>Create Edit Store Digital Content Camera Record</p>	<p>Summer 2: Coding 2 (Blocks – Drag and drop)</p> <p><b>I know that an algorithm is a set of instructions used to solve a problem or achieve an objective.</b></p> <p><b>I know that an algorithm for a computer is called a program.</b></p> <p><b>I know how to interpret what will happen at different stages of a program.</b></p> <p><b>I know how to create a simple program and test it.</b></p>	<p>Algorithm Program Code Code Snippet Run Test Robots</p>		
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Y2	<p>Autumn 1: Safe Use</p> <p><b>I know the implications of inappropriate online searches.</b></p> <p>Project Evolve (Managing Online Information):</p> <p>I can explain why some information online may not be real or true.</p> <p><b>I know where to go for help if concerned.</b></p> <p>Project Evolve (Online Reputation):</p> <p>I know who to talk to if something has been put online without consent or if it is incorrect.</p> <p>Project Evolve (Online Bullying):</p> <p>I can talk about how anyone experiencing bullying can get help.</p>	<p>Implications Appropriate Inappropriate Consent Bullying</p>	<p>Spring 1: Coding 1 (Blocks – Drag and drop)</p> <p><b>I know that an algorithm is used on digital devices and is a simple set of steps designed to complete a task.</b></p> <p><b>I know that programs require precise and unambiguous instructions.</b></p> <p><b>I know how to predict what the outcome of a simple program will be.</b></p> <p>I know how to identify the parts of a program that respond to specific actions.</p> <p><b>I know how to create and debug a simple program that achieves a specific purpose.</b></p>	<p>Blocks Drag and Drop Predict Debugging</p>	<p>Summer 1: Software and Hardware 2</p> <p><b>I know how to create, name, save and retrieve content including photos, text and sound.</b></p>	<p>Create Name File Photographs Text Sound</p>	<p>I can use the space bar only once between words</p> <p>I can copy and paste images and text.</p> <p>Use caps locks for capital letters.</p> <p>I can add images alongside text in a word processed document.</p> <p>I can dictate longer passages into a digital device with accurate punctuation</p>	<p>Copy Paste Images Text Caps Lock Document Word processed</p>
	<p>Autumn 2: The Internet</p> <p><b>I know how to effectively retrieve relevant, purposeful digital content using a search engine.</b></p> <p>Project Evolve (Managing Online Information) :</p> <p>I can use simple keywords in search engines.</p> <p>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 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>Retrieve Kiddle Keywords Navigate The Web Webpage Home Button Forward Button Back Button Links Tabs Voice Activated Alexa Siri Google Assistant</p>	<p>Spring 2: Software and Hardware 1</p> <p><b>I know how to organise, retrieve and manipulate digital content purposefully.</b></p>	<p>Organise Manipulate</p>	<p>Summer 2: Coding 2 (Scratch Jr – Drag and drop)</p> <p><b>I know that an algorithm is used on digital devices and is a simple set of steps designed to complete a task.</b></p> <p><b>I know that programs require precise and unambiguous instructions.</b></p> <p><b>I know how to predict what the outcome of a simple program will be.</b></p> <p>I know how to identify the parts of a program that respond to specific actions.</p> <p><b>I know how to create and debug a simple program that achieves a specific purpose.</b></p>	<p>Drag and Drop Predict Predict Debugging</p>		

Y3	<p>Autumn 1: Safe Use</p> <p><b>I know how to use technology safely, respectfully and responsibly.</b></p> <p>Project Evolve (Online Bullying) :</p> <p>I can describe appropriate ways to behave towards other people online and why this is important.</p> <p>I can give examples of how bullying behaviour could appear online and how someone can get support.</p> <p><b>I know the negative implications of failure to keep passwords safe and secure.</b></p> <p>Project Evolve (Privacy and Security):</p> <p>I can describe simple strategies for creating and keeping passwords private.</p> <p><b>I know different ways I can get help if concerned.</b></p> <p>Project Evolve (Managing Online Information):</p> <p>I can describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened.</p> <p>Project Evolve (Privacy and Security):</p> <p>I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult.</p>	<p>Support Negative Implications Safe &amp; Secure Pressured Harmful Behaviour Strategies Accounts Credible</p>	<p>Spring 1: Coding 1 (Scratch – Drag and drop)</p> <p><b>I know how to design and debug a sequence of instructions, including directional instructions.</b></p> <p><b>I know how to detect errors within programs.</b></p> <p><b>I know how to create programs that accomplish specific goals.</b></p>	<p>Scratch JavaScript programming language Sprites Costumes Sequence Directional Instructions Detect Decomposition Inputs Outputs</p>	<p>Summer 1: Software and Hardware 2 Networks</p> <p><b>I know what computer networks do and how they provide multiple services.</b></p> <p><b>I know how to collect and present information.</b></p>	<p>Network Services Collect Information Present Information</p>	<p>I can use index fingers on keyboard home keys (f/j), use left fingers for a/s/ d/f/g, and use right fingers for h/j/k/l</p> <p>I can edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows.</p> <p>I can use cut, copy and paste to quickly duplicate and organise text.</p>	<p>Edit Font Cut Duplicate</p>
	<p>Autumn 2: The Internet</p> <p><b>I know how to navigate the web and use other search technologies to complete simple searches effectively.</b></p> <p>Project Evolve (Online Reputation):</p> <p>I can explain how to search for information about others online.</p> <p>Project Evolve (Managing Online Information):</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>Key Phrases Autocomplete Browser Google Chrome Microsoft Edge Safari (Apple IOS)</p>	<p>Spring 2: Software and Hardware 1</p> <p>To know how to discern when it is best to use technology and where it adds time or no value.</p> <p><b>I know how to use a range of software for similar purposes.</b></p>	<p>Software Value</p>	<p>Summer 2: Coding 2 (Kodu – Drag and drop)</p> <p><b>I know how to design and debug a sequence of instructions, including directional instructions.</b></p> <p><b>I know how to detect errors within programs.</b></p> <p>I know how to make logical, achievable steps and absorb new knowledge of coding structures.</p> <p><b>I know how to write programs that accomplish specific goals.</b></p>	<p>Kodu Sequence Directional Instructions Detect Conditions</p>		

<p>Y4</p>	<p>Autumn 1: Safe Use</p> <p><b>I know how to recognise acceptable and unacceptable behaviour using technology.</b></p> <p>Project Evolve (Self-Image and Identity):</p> <p>I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.</p> <p>Project Evolve (Online Relationships):</p> <p>I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms)</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>Project Evolve (Online Bullying):</p> <p>I can recognise when someone is upset, hurt or angry online.</p> <p>I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).</p> <p><b>I know a range of ways of reporting inappropriate content and contact.</b></p> <p>Project Evolve (Yr5 Online Bullying):</p> <p>I can explain how someone can get help if they are having problems and identify when to tell a trusted adult.</p>	<p>Livestreaming Gaming Platforms Respect Disrespect Social Media SMS Texts Emojis Status Media Chat Immersive Technology Virtual Reality Shallow Fakes Deep Fakes Reporting Anonymous</p>	<p>Spring 1: Coding 1 (Scratch – Drag and drop)</p> <p><b>I know how to make an accurate prediction and explain why they believe something will happen.</b></p> <p><b>I know how to detect and correct errors in programs.</b></p> <p><b>I know how to experiment with variables to control models.</b></p> <p>I know how to trace code and use step-through methods to identify errors in code and make logical attempts to correct this.</p> <p><b>I know how to create a program which accomplishes a specific goal.</b></p>	<p>Variables Trace code Step-through Selection Sensing Operators PRIMM</p>	<p>Summer 1: Software and Hardware 2 Networks</p> <p><b>I know that computer networks can provide opportunities for communication and collaboration.</b></p> <p><b>I know how to select and use software to accomplish given goals.</b></p> <p>I know how to make informed software choices when presenting information and data.</p>	<p>Collaboration Switch Server Wireless Access Point (WAP) MS Teams Protocols MS Excel Cell</p>	<p><b>I can combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets.</b></p> <p>Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text</p> <p>Use font sizes appropriately for audience and purpose.</p> <p>Use spell check and thesaurus including through Siri and other AI technology.</p>	<p>eBooks Text Shortcuts Back Space Spell Check Thesaurus Siri AI</p>
	<p>Autumn 2: The Internet</p> <p><b>I know how to search for specific information and know which is useful and which is not.</b></p> <p><b>I know how to appraise selected webpages for credibility and information at a basic level.</b></p> <p>Project Evolve (Managing Online Information):</p> <p>I can analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.</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>Appraise Fake Misinformation Disinformation Digital Footprint</p>	<p>Spring 2: Software and Hardware 1</p> <p><b>I know how to create linked content using a range of software.</b></p>	<p>Book Creator Touch Typing</p>	<p>Summer 2: Coding 2 (BBC MicroBit – MakeCode – Drag and drop)</p> <p>I know how to trace code and use step-through methods to identify errors in code and make logical attempts to correct this.</p> <p><b>I know how to make an accurate prediction and explain why they believe something will happen.</b></p> <p><b>I know how to detect and correct errors in programs.</b></p> <p><b>I know how to create a program which accomplishes a specific goal.</b></p>	<p>BBC MicroBit Variables Trace code Step-through Selection Sensing Operators PRIMM</p>		

<p>Y5</p>	<p>Autumn 1: Safe Use</p> <p><b>I know how to make choices when using technology and that not everything is true and/or safe.</b></p> <p>Project Evolve (Self-Image and Identity):</p> <p>I can demonstrate how to make responsible choices about having an online identity, depending on context.</p> <p>Project Evolve (Online Reputation):</p> <p>I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect.</p> <p>Project Evolve (Managing Online Information):</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 describe how fake news may affect someone's emotions and behaviour, and explain why this may be harmful.</p>	<p>Online identity Profile Digital consent Cookies Online reputation Privacy settings Modify Alter Avatars</p>	<p>Spring 1: Coding (Text based programming)</p> <p><b>I know about code structure, how to debug and interpret code.</b></p> <p><b>I know how to test and debug a program as they go.</b></p> <p><b>I know how to use logical methods to detect and correct errors.</b></p> <p><b>I know how to turn complex real-life situations into algorithm for a program by deconstructing it into manageable parts.</b></p>	<p>Procedures Text based programming Java Logo CSS/HTML JavaScript</p>	<p>Summer 1: Software and Hardware 2 Networks</p> <p><b>I know the opportunities of computer networks but are also aware of their dangers.</b></p> <p>I know how to use several ways of sharing digital content.</p> <p><b>I know how to analyse, evaluate and present data and information when creating content.</b></p>	<p>Cloud computing Bluetooth Padlet</p>	<p><b>I can start to apply other useful effects to my documents such as hyperlinks.</b></p> <p>I can import sounds to accompany and enhance the text in my document.</p> <p>I can organise and reorganise text on screen to suit a purpose</p>	<p>Hyperlinks Import Export</p>
	<p>Autumn 2: The Internet</p> <p><b>I know how to identify credible webpages.</b></p> <p>Project Evolve: (Managing Online Information):</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.</p> <p><b>I know how search results are selected and ranked.</b></p> <p>Project Evolve: (Yr 6 Managing Online Information):</p> <p>I can explain how search engines work and how results are selected and ranked.</p>	<p>Ranked Responsibility Discrimination URL (Universal Resource Locator) Domain name Critical thinking</p>	<p>Spring 2: Software and Hardware 1</p> <p><b>I know how to combine a variety of software on a range of digital devices to design and create content to accomplish given goals.</b></p>	<p>Digital recording device Audacity WAV file (Waveform audio format) Podcast</p>	<p>Summer 2: Coding 2 (Crumble Kits – Drag and drop)</p> <p><b>I know how to write a program for an external device.</b></p> <p><b>I know how to change inputs to achieve different outputs.</b></p> <p><b>I know how to develop a program that has specific variables identified.</b></p>	<p>Crumble controller Sparkle Count controlled loops External devices</p>		

Y6	<p>Autumn 1: Safe Use</p> <p><b>I know how to recognise the value in preserving privacy when online for their own and other people's safety.</b></p> <p>Project Evolve (Online Relationships):</p> <p>I can explain how sharing something online may have an impact either positively or negatively.</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 things shared privately online can have unintended consequences for others. e.g. screen-grabs.</p> <p>I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.</p> <p><b>I know the potential dangers in using aspects of IT and know when to alert if feeling uncomfortable.</b></p> <p>Project Evolve (Self-Image and Identity):</p> <p>I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.</p> <p>I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline.</p> <p>I can explain the importance of asking until I get the help needed.</p>	<p>Oversharing SMART Instagram TikTok Snapchat X Tagging photos Geo-location Grooming Sexting Disappearing messages Influencers</p>	<p>Spring 1: Coding (Python programming language)</p> <p><b>I know how to design algorithms that use selection and repetition.</b></p> <p>I know how to interpret a program in parts and make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole.</p> <p><b>I know how to write a program that combines more than one variable and various forms of inputs and outputs.</b></p>	<p>Python Syntax Rules Print Range YouTube Netflix Facebook NASA Chatbot</p>	<p>Summer 1: Software and Hardware 2 Networks</p> <p><b>I know the difference between the internet and the World Wide Web.</b></p> <p><b>I know how to select and use a variety of software, on a range of digital devices to design and create a range of programs and systems and content.</b></p>	<p>Global network</p>	<p>I can confidently choose the best application to demonstrate my learning.</p> <p>I can format text to suit a purpose.</p> <p>I can publish my documents online regularly and discuss the audience and purpose of my content.</p>	<p>Format Publish</p>
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<p>Autumn 2: The Internet</p> <p>I know that some search engines may provide misleading information.</p> <p>I know how to explain in detail how credible a webpage is and the information it contains.</p> <p>I know how to use filters when searching for digital content.</p> <p><b>I know how to compare a range of digital content sources and rate them in terms of content quality and accuracy.</b></p> <p>Project Evolve (Managing Online Information):</p> <p>I can describe how some online information can be opinion and can offer examples.</p> <p>I can demonstrate how to analyse and evaluate the validity of facts and information and I can explain why using these strategies are important.</p> <p>I can describe the difference between online misinformation and dis-information</p> <p>I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation or disinformation).</p>	<p>WWW (World Wide Web)</p> <p>Boolean operators</p> <p>Web crawler</p> <p>Spider</p> <p>Indexing</p> <p>Filters</p> <p>SEO (Search Engine Optimisation)</p> <p>SERP (Search engine results page)</p> <p>Target audience</p>	<p>Spring 2: Software and Hardware 1</p> <p><b>I know how to select and use a variety of software, on a range of digital devices to design and create a range of programs and systems and content.</b></p>	<p>Colours</p> <p>Brightness</p> <p>Contrast</p> <p>Crop</p> <p>Layers.</p> <p>Resize</p> <p>Eraser tools</p>	<p>Summer 2: Coding 2 (BBC Micro Bits – Python programming language)</p> <p><b>I know how to solve problems by decomposing them into smaller parts.</b></p> <p><b>I know how to develop a sequenced program that has repetition and variables identified.</b></p>	<p>Python</p> <p>Decomposing</p>		
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