



COMPUTING PROGRESSION DOCUMENT

Highfield Community Primary School

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Computer Science

	<u>EYFS</u>	<u>Year One</u>	<u>Year Two</u>	<u>Year Three</u>	<u>Year Four</u>	<u>Year Five</u>	<u>Year Six</u>
Disciplinary Knowledge (Skills)	<p>Identify the main parts of a computer including mouse, keyboard, screen and computer</p> <p>Understand that a digital device can be programmed with one or more instructions.</p> <p>Follow simple instructions to make things happen e.g.</p>	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and programs execute by following precise and unambiguous instructions</p> <p>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and programs execute by following precise and unambiguous instructions</p> <p>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how</p>

	<p>cleaning teeth.</p> <p>Understand how to solve problems when an instruction is wrong</p>			<p>some simple algorithms work to detect and correct errors in algorithms and programs</p> <p>Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.</p>	<p>some simple algorithms work to detect and correct errors in algorithms and programs</p> <p>Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.</p>	<p>some simple algorithms work to detect and correct errors in algorithms and programs</p> <p>Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.</p>	<p>some simple algorithms work to detect and correct errors in algorithms and programs</p> <p>Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.</p>
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<p>Substantive Knowledge</p>	<p>Children know that a computer has a mouse, keyboard and screen</p> <p>Children know that technological devices can programme using simple instructions</p> <p>Children know that instructions make things happen and can solve problems when it goes wrong</p>	<p>Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that a computer program turns an algorithm into code that the computer can understand</p> <p>Children can work out what is wrong with a simple algorithm when the steps are out of order e.g The Wrong Sandwich. They know an unexpected outcome is due to the code</p>	<p>Children can explain that an algorithm is a set of instructions to complete a task. Children know their algorithms need to be precise when designing simple programs so they can be converted into code.</p> <p>Children can create a simple program that achieve a specific purpose. They can identify and correct error using Debug Challenges. Program</p>	<p>Children can turn a simple real-life situation into an algorithm for a program by deconstruction into parts. They think of the desired task and how this translates into code. They can identify an error within their program that prevents it following the desired algorithm and fix it.</p> <p>Children can design and code a program following a simple sequence. They experiment with timers to achieve</p>	<p>When turning a real-life situation into an algorithm, the children's design shows that they are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition. Children make more intuitive attempts to debug their programs.</p> <p>Children use timers to achieve repetition effects. They use coding structures such as variables to achieve the</p>	<p>Children attempt to turn more complex real - life situations into algorithms for a program. They test and debug their programs as they go and can use logical methods to identify cause of any bug</p> <p>Children can translate algorithms that include sequence, selection and repetition into code to complete their own coding task. They are combining sequence, selection and repetition with other coding</p>	<p>Children turn a complex programming task into an algorithm by identifying the important aspects of the task and then decomposing them in a logical way using their knowledge of coding structures. Children test and debug their program and use logical methods to identify the cause of bugs, demonstrating a systematic approach to try and identify a particularly line of code causing a problem.</p>
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		<p>they have created and can make logical attempts to fix the code.</p> <p>Children can read code one line at a time and make good attempts to envision the overall effect of the program. I.e Turtle 2GO challenges</p>	<p>designs display awareness of the need for logical programming steps,</p>	<p>repetition effects in their program. They understand the difference between using a timer command rather than a repeat command,</p> <p>They demonstrate understanding of the structure of a program in logical, achievable steps whilst absorbing some new knowledge of coding structures. I.e repetition and use of timers. They can predict an outcome accurately when code reading.</p>	<p>effects that they design in their programs. Understanding variables store information whilst the program is executing, they use and manipulate the value of variables. Children use inputs and outputs such as 'print to screen'.</p> <p>Children can trace code and use step-through methods to identify errors in code and make logical attempts to correct this. Programs such as Logo, they</p>	<p>structures to achieve their algorithm design.</p> <p>When children code, they are beginning to think about their code structure in terms of the ability to debug and interpret the code later e.g the use of tabs to organise code and the naming of variables</p> <p>Children understand the value of computer networks but their main dangers also. They recognise personal information and</p>	<p>Children translate algorithms that include sequence, selection and repetition into code and their own designs show that they are thinking of how to accomplish the set task in code using nesting structures. Coding displays an improving understanding of variables of coding, outputs such as sound and movements inputs from the user of the programme such as button clicks and the value of functions.</p>
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				<p>List ways in which internet is used to provide methods of communication. They can open, respond and attach files to 2Email.</p>	<p>can read programs with several steps and predict the outcome.</p> <p>Children recognise the main component parts of hardware which allows computers to join and form a network. Their ability to understand the online safety implications associated with the ways the internet can be used to provide different method so communication is improving.</p>	<p>explain how it can be kept safe. Children can select appropriate form of communications on audience and digital content e,g 2Blog, 2Email, Display Boards.</p>	<p>Children can interpret a program in parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole.</p> <p>Children understanding and explain in some depth the different between the internet and WWW. Children know what WAN and LAN are and can describe how they access the internet in school.</p>
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<u>Vocabulary</u>	Mouse, keyboard, screen, computer, instruction, problem, solve	Computer, groups, sort, algorithm, program, instructions, program, code, debugging, challenge, command, direction, route, undo, unit, left and right, instruction, left and right, event, execute, action, background	Action, button, command, algorithm, collision detection, event, design mode, debug, nesting, object, predict, run, scale, sequence, sound, timer, text, properties, scene, test	Event, nesting, predict, run, scene, sequence, timer, test, properties, object, algorithm, flowchart, implement, input, interval, turtle object	Action, algorithm, background, button, debug, command, event, object, nest, run, flowchart, predict, properties, sequence, timer alert, code blocks, execute, 'IF' statements, 'If/else' statements, input, implement, prompt, repeat until, selection, variable	Action, algorithm, debugging, flowchart, event, object, nesting, input, sequence, selection, properties, timer, variable, abstraction, concatenation, decomposition, efficient, function, output, physical system, selection, simplify	Action, algorithm, command, event, debug, flowchart, execute, run, object, input, output, proper ties, predict, sequence, repeat until, selection, variable, timer, decomposition, co-ordinates, function, launch command, procedure, tab simulation
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Information Technology

	EYFS	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Disciplinary Knowledge (Skills)	<p>Introduce the basic use of programmes including Purple Mash and Active Learn</p> <p>Children understand a mouse is used to click on things using a programme</p> <p>Children understand how and why technology is used</p> <p>Children understand they can use technology to</p>	<p>Use technology purposefully to create, organise, store and manipulate and retrieve digital content</p>	<p>Use technology purposefully to create, organise, store and manipulate and retrieve digital content</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish</p>

	publish work i.e 2PAINT Children understand that they can take and delete pictures on an iPad			given goals, including collecting, analysing, evaluating and presenting data and information.	given goals, including collecting, analysing, evaluating and presenting data and information.	given goals, including collecting, analysing, evaluating and presenting data and information.	given goals, including collecting, analysing, evaluating and presenting data and information.
Substantive Knowledge	Children (guided) can navigate themselves around programmes including Purple Mash and Active Learn Children know a mouse is used to click on things on a programme Children know a variety of	Children can sort, collate, edit and store simple digital content. Name, save, retrieve their work and follow simple instructions to access online resources such as 2Quiz, 2Code and using pictogram softwares	Children can organise data using a database and can retrieve specific data for conducting simple searches. They can edit more complete digital data such as music compositions within a sequence. Children can create, name, save and	Children can carry out simple searches to retrieve digital content. They understand that to do this, they are connecting to the internet and using a search engine. Children can collect, analyse, evaluate and present data	Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level. Children can make improvements to digital solutions based	Children search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains. Children can make appropriate improvements to digital	Children readily apply filters when searching for digital content. They are able to explain in detail how credible a webpage is and the information it contains. They compare a range of digital content sources and are able to rate them in terms of content quality and accuracy

	<p>ways in which technology can be used for research, communication and publishing</p> <p>Children know their work can be published online</p> <p>Children know how to safely and appropriately take and delete pictures on an iPad</p>	<p>such as 2Count.</p>	<p>retrieve content. They use a range of media in their digital content including photos, text and sound.</p>	<p>and information using selecting of software such as databases. They can consider what software is most appropriate for a given task and create purposeful content to attach to emails.</p>	<p>on feedback. Children make informed software choices when presenting information and data. They create linked content using softwares such as 2Connect and 2Publish. They will share digital content within their community i.e display boards.</p>	<p>solutions based on feedback received and can confidently comment on the success of the solution e.g creating their own program to meet a design brief. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within a software. They use several ways of sharing digital content 2Blog, display board and 2Email.</p>	<p>Children use critical thinking skills in everyday use of online communication.</p> <p>Children make clear connections to the audience when designing and creating digital content. The children design and create their own blogs to become a content creator on the internet I.E 2Blog. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements,</p>
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							making some refinements.
Vocabulary	Technology, publish, take, delete, programme, publish, communication	Collect data, compare, data, pictogram, record results, title, background, animation, clip art, font, text, sound, edit, e-book, buttons, cells, calculations, column, count, data, delete, lock cell, image, row, value, spreadsheet	Rows, column, cells, spreadsheet, delete, count, pictogram, animated, backspace, move, copy and paste, speak, equals, lock, image, collate, avatar, binary tree, database, data, question, share, template, impressionism, pointillism, palette, soundtrack, bpm, instrument, composition, music, digitally,	Data, equals, rows, columns, spreadsheet, data, equals, binary tree, data, debugging, database, font, text box, bar graph, cell address, less than, more than, pie chart, table, posture, keys, typing, space bar, branching database, analysis, simulations, evaluation, decision, modelling, axis, chart,	Row, spreadsheet, data, equals, timer, animation, tempo, formula, average, budget, chart, decimal place, formula wizard, format cell, percentage, line graph, spin, grid, logo, multi-line mode, prediction, procedure, SETPC, SETPS, frame, onion skinning, pause, stop motion,	Rows, column, spreadsheet, data, formula, variable, chart, search, font, copy and paste, advance mode, sort, record, statistics, record, collaborative, 2D, 3D, printing, design brief, net, template, pattern fill, points, concept, connection, node, story mode, bulleted links, caps lock, captions, copyright, creative	Row, column, spreadsheet, data, formula, advance mode, budget, chart, count, dice tool, expense, format cell, formula bar, move cell tool, probability, profit, approval, blog, archive, post, collaborate, commenting, Vlog, audience, audio, case-sensitive, cloze, participants, preview, quiz, survey

			volume, tempo, sound effect, quiz, node, concept map, audience, narrative, non- fiction	investigation, sorting, tally chart, slide, transition, border, word art, media, layer, slideshow,	internet, key words, reliability, results page, search engine, dynamics, melody, pulse, rhythm, synths, tempo, pitch, texture, harmonious	commons, cursor, document, hyperlink, page orientation, merge cells, formatting, readability, text wrapping	
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Digital Literacy

	EYFS	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Disciplinary Knowledge (Skills)	<p>Recognise technological equipment including phones, computer, laptops and iPads</p> <p>Children can understand the different uses of technology</p> <p>Children understand they have their own usernames and passwords to log in and out</p>	<p>Recognise common uses of information technology beyond school.</p> <p>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p>	<p>Recognise common uses of information technology beyond school.</p> <p>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p>	<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.</p>	<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.</p>	<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.</p>	<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.</p>

	<p>Begin to explain what to do if they see something on a device that worries them</p> <p>Introduction to the internet through the use of stories including what it is, how it is used and how to stay safe.</p>						
Substantive Knowledge	Children can name technological equipment including phones, laptops,	Children understand what is meant by technology and can identify a variety of examples both	Children can effectively retrieve relevant, purposeful digital content using a search engine. They	Children demonstrate the importance of having a secure password and not sharing this with anyone	Children can explore key concepts relating to online safety using concept mapping such as 2Connect.	Children have a secure knowledge of common online safety rules and can apply this by demonstrating	Children demonstrate the safe and respectful use of a range of different technologies and online

	<p>computers and iPads</p> <p>Children know the differences in technology - phones and computers</p> <p>Children know the importance of having their own username and passwords and why to keep them private</p> <p>Children know who to speak to when they see something that worries them online</p>	<p>in and out of school. They can make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair.</p> <p>Children understand the importance of keeping information, such as their usernames and passwords, private and actively demonstrate this in lessons. Children take ownership of their work and save this in their own private space</p>	<p>can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. 2Publish example template. Children make links between technology they see around them, coding and multimedia work they do in school e.g. animations, interactive code and programs.</p> <p>Children know the implications of inappropriate online searches.</p>	<p>else.</p> <p>Furthermore, children can explain the negative implications of failure to keep passwords safe and secure.</p> <p>They understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as 2Email in Purple Mash. They know more than one way to report unacceptable content and contact.</p>	<p>They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact</p>	<p>the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.</p>	<p>services. They identify more discreet inappropriate behaviours through developing critical thinking, e.g. 2Respond activities. They recognise the value in preserving their privacy when online for their own and other people's safety.</p>
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	Children know what the internet is	such as their My Work folder on Purple Mash.	Children begin to understand how things are shared electronically such as posting work to the Purple Mash display board. They develop an understanding of using email safely by using 2Respond activities on Purple Mash and know ways of reporting inappropriate behaviours and content to a trusted adult				
Vocabulary	Internet, safe, worries, password, username, log in, log out, technology	Alert, avatar, button, device, file name, icon, log in, log out, menu, notification, my work area, private,	Search, display board, internet, sharing, email, attachment, digital footprint, search engine,	Internet, password, email appropriate, blog, inappropriate, personal information, spoof,	AdFly, attachment, citation, collaborate, cookies, copyright, digital footprint,	Password, malware, collaborate, copyright, password, SMART rules, phishing, personal	Password, digital footprint, phishing, spoof, inappropriate, PEGI rating, data analysis, location

		password, saving, search, computer, technology		permission, reputable source, reliable source, verify, website, vlog, email, address book, attachment, BCC, CC, communication, compose, inbox, personal information, save to draft, trusted contact	malware, copyright, phising, plagiarism, ransomware, spam, SMART rules, spam, virus, watermark	information, citation, communication, creative commons licence, encrypt, ownership, identity theft, PEGI ratings, spoof, validity	sharing, print screen, screen time, secure websites
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Online Safety

	<u>EYFS</u>	<u>Year One</u>	<u>Year Two</u>	<u>Year Three</u>	<u>Year Four</u>	<u>Year Five</u>	<u>Year Six</u>
Substantive Knowledge	<p>Children will learn to consider the feelings of themselves and others when making decisions about when, where, and how much to use technology.</p> <p>Children will understand the importance of 'balance' when using technology</p>	<ul style="list-style-type: none"> • To log in safely. • To start to understand the idea of 'ownership' of their creative work. • To learn how to find saved work in the Online Work area and find teacher comments. • To learn how to search Purple Mash to find resources. • To become familiar with the types of resources 	<ul style="list-style-type: none"> • To know how to refine searches using the Search tool. • To know how to share work electronically using the display boards. • To use digital technology to share work on Purple Mash to communicate and connect with others locally. • To have some knowledge and understanding about sharing more globally on the Internet. • To introduce Email as a 	<ul style="list-style-type: none"> • To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away. • To understand how the Internet can be used to help us to communicate effectively. • To understand how a blog can be used to help us communicate with a wider audience. • For pupils to consider if what they read on websites is true? 	<ul style="list-style-type: none"> • To understand how pupils can protect themselves from online identity theft. • Understand that information put online leaves a digital footprint or trail and that this can aid identity theft. • To Identify the risks and benefits of installing software including apps. • To understand that copying 	<ul style="list-style-type: none"> • To gain a greater understanding of the impact that sharing digital content can have. • To review sources of support when using technology. • To review pupils' responsibility to one another in their online behaviour. • To know how to maintain secure passwords. • To understand the advantages, disadvantages, 	<ul style="list-style-type: none"> • Identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location. • Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon. • Identify the benefits and risks of giving personal information and device access

<p>Children understand how to know when they have had enough screen time.</p> <p>Children understand why it's important to be aware and respectful of people while using devices.</p> <p>Children understand that the internet can be used to visit places far away and learn new things.</p>	<p>available in the Topics section.</p> <ul style="list-style-type: none"> • To become more familiar with the icons used in the resources in the Topics section. • To start to add pictures and text to work. • To explore the Tools section of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New. • To explore the Games section on Purple Mash. • To understand the 	<p>communication tool using 2Respond simulations.</p> <ul style="list-style-type: none"> • To understand how we talk to others when they are not there in front of us. • To open and send simple online communications in the form of email. • To understand that information put online leaves a digital footprint or trail. • To begin to think critically about the information they leave online. • To identify the steps that can be taken to 	<ul style="list-style-type: none"> • To look at a 'spoof' website. • To create a 'spoof' webpage. • To think about why these sites might exist and how to check that the information is accurate. • To learn about the meaning of age restrictions symbols on digital media and devices. • To discuss why PEGI restrictions exist. • To know where to turn for help if they see inappropriate content or have inappropriate contact from others. • To learn how to use email safely. 	<p>the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism.</p> <ul style="list-style-type: none"> • To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. • To identify the positive and negative influences of technology on health and the environment. • To understand the importance of balancing game and screen time 	<p>permissions, and purposes of altering an image digitally and the reasons for this.</p> <ul style="list-style-type: none"> • To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online. • To learn about how to reference sources in their work • To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of 	<p>to different software.</p> <ul style="list-style-type: none"> • To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user. • To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour. • To begin to understand how
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	<p>Children can compare how staying safe online is similar to staying safe in the real world.</p>	<p>importance of logging out when they have finished.</p>	<p>keep personal data and hardware secure</p> <ul style="list-style-type: none"> • To gain a better understanding of searching the Internet. 		<p>with other parts of their lives.</p> <ul style="list-style-type: none"> • To assess whether an information source is true and reliable. • To assess whether an information source is true and reliable. 	<p>incorrect information.</p> <ul style="list-style-type: none"> • Ensuring reliability through using different methods of communication 	<p>information online can persist and give away details of those who share or modify it.</p> <ul style="list-style-type: none"> • To understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health. • To identify the positive and negative influences of
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							<p>technology on health and the environment.</p> <ul style="list-style-type: none"> • To understand how to contribute to an existing blog. • To understand how and why blog posts are approved by the teacher. • To understand the importance of commenting on blogs. • To peer-assess blogs against the agreed success criteria.
<p>Disciplinary Knowledge</p> <p>(Skills)</p>	<p>Children know to consider the feelings of themselves and others when making</p>	<ul style="list-style-type: none"> • Pupils can find their saved work in the Online Work area of Purple Mash. • Pupils can find messages that their 	<ul style="list-style-type: none"> • Pupils can use the search facility to refine searches on Purple Mash by year group and subject. • Pupils can share the work 	<ul style="list-style-type: none"> • Pupils understand what makes a good password for use on the Internet. Pupils are beginning to realise the outcomes of not 	<ul style="list-style-type: none"> • Pupils know that security symbols such as a padlock protect their identity online. • Pupils know the meaning of the term 	<ul style="list-style-type: none"> • Pupils can see how they can use images and digital technology to create effects not possible without technology. 	<ul style="list-style-type: none"> • Pupils have used the example game and further research to refresh their memories about risks online including

	<p>decisions about when, where, and how much to use technology.</p> <p>Children know the importance of 'balance' when using technology</p> <p>Children know when they have had enough screen time.</p> <p>Children know why it's important to be aware and respectful of people</p>	<p>teacher has left for them on Purple Mash.</p> <ul style="list-style-type: none"> • Pupils can search Purple Mash to find resources. • Pupils will be able to use the different types of topic templates in the Topics section confidently. • Pupils will be confident with the functionality of the icons in the topic templates. • Pupils will know how to use the different icons and writing cues to add pictures 	<p>they have created to a display board.</p> <ul style="list-style-type: none"> • Pupils understand that the teacher approves work before it is displayed. • Pupils are beginning to understand how things can be shared electronically for others to see both on Purple Mash and the Internet. • Pupils know that Email is a form of digital communication. • Pupils understand how 2Repond can teach them how to use email. • Pupils can open and send an email to a 	<p>keeping passwords safe.</p> <ul style="list-style-type: none"> • Pupils can contribute to a concept map of all the different ways they know that the Internet can help us to communicate. • Pupils have contributed to a class blog with clear and appropriate messages. • Extension: Pupils understand that passwords help to limit who can see personal / private / confidential information. • Pupils understand that some information held on websites may 	<p>'phishing' and are aware of the existence of scam websites.</p> <ul style="list-style-type: none"> • Pupils can explain what a digital footprint is and how it relates to identity theft. • Pupils can give examples of things that they would not want to be in their digital footprint. • Pupils can identify possible risks of installing free and paid for software. • Pupils know that malware is software that is specifically designed to 	<ul style="list-style-type: none"> • Pupils have experienced how image manipulation could be used to upset them or others even using simple, freely available tools and little specialist knowledge. • Pupils can cite all sources when researching and explain the importance of this. • Pupils select keywords and search techniques to find relevant information and increase reliability • Pupils show an understanding of the advantages and disadvantages 	<p>sharing location, secure websites, spoof websites, phishing and other email scams.</p> <ul style="list-style-type: none"> • Pupils have used the example game and further research to refresh their memories about the steps they can take to protect themselves including protecting their digital footprint, where to go for help, smart rules and security software. • Pupils understand how what they share impacts
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	<p>while using devices.</p> <p>Children know that the internet can be used to visit places far away and learn new things.</p> <p>Children can compare how staying safe online is similar to staying safe in the real world.</p>	<p>and text to their work.</p> <ul style="list-style-type: none"> • Pupils have explored the Tools section on Purple Mash and become familiar with some of the key icons: Save, Print, Open and New. • Pupils have explored the Games section and looked at Table Toons (2x tables). • Pupils can log out of Purple Mash when they have finished using it and know why that is important. 	<p>2Respond character.</p> <ul style="list-style-type: none"> • Pupils have discussed their own experiences and understanding of what email is used for. • Pupils have discussed what makes us feel happy and what makes us feel sad. • Pupils can explain what a digital footprint is. • Pupils can give examples of things that they would not want to be in their digital footprint. • I can identify the basic parts of a web search engine search page. 	<p>not be accurate or true.</p> <ul style="list-style-type: none"> • Pupils are beginning to understand how to search the Internet and how to think critically about the results that are returned. • Pupils have accessed and assessed a 'spoof' website. • Pupils have created their own 'spoof' webpage mock-up. • Pupils have shared their 'spoof' web page on a class display board. • Pupils evaluate facts from a website and explain how they fact checked the information that was presented. 	<p>disrupt, damage, or gain access to a computer.</p> <ul style="list-style-type: none"> • Pupils know what a computer virus is. • Pupils can determine whether activities that they undertake online, infringe another's' copyright. They know the difference between researching and using information and copying it • Pupils know about citing sources that they have used. • Pupils can take more informed 	<p>of different forms of communication and when it is appropriate to use each.</p>	<p>upon themselves and upon others in the long term.</p> <ul style="list-style-type: none"> • Pupils know about the consequences of promoting inappropriate content online and how to put a stop to such behaviour when they experience it or witness it as a bystander. • Pupils' actions demonstrate that they also feel a responsibility to others when communicating and sharing content online. • Pupils can take more informed ownership of the way that
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			<ul style="list-style-type: none"> • I have learnt to read a web search results page. • I can search for answers to a quiz on the Internet. 	<ul style="list-style-type: none"> • Pupils can identify some physical and emotional effects of playing/watching inappropriate content/games. • Pupils relate cyberbullying to bullying in the real world and have strategies for dealing with online bullying including screenshot and reporting • Pupils have written rules about how to stay safe using email. • Pupils have contributed to classmates' rules. • Pupils understand the importance of draft. • Pupils have created a quiz 	<p>ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities.</p> <ul style="list-style-type: none"> • Pupils can give reasons for limiting screen time. • Pupils can analyse the contents of a web page for clues about the credibility of the information. 	<p>they choose to use their free time. They recognise a need to find a balance between being active and digital activities.</p> <ul style="list-style-type: none"> • Pupils can give reasons for limiting screen time. • Pupils can talk about the positives and negative aspects of technology and balance these opposing views. • Pupils have an internalised in-depth understanding of the risks and benefits of an online presence. • Pupils can post comments
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about email safety which explores scenarios that they could come across in the future.

and blog posts to an existing class blog.

- Pupils understand the approval process that their posts go through and demonstrate an awareness of the issues surrounding inappropriate posts and cyberbullying.
- Pupils can comment on and respond to other blogs.
- Pupils can assess the effectiveness and impact of a blog.
- Pupils understand that content included in their blog carefully

							considers the end user.
Vocabulary	Safe, online, respect, screen time, balance, feelings	Alert, avatar, button, device, file name, icon, log in, log out, menu, notification, My Work Area, private, password	Search, display board, internet, sharing, email, attachment, digital footprint	Internet, password, appropriate, blog, inappropriate, personal information, permission, reputable source, reliable source, spoof, vlog, website, verify	Attachment, digital footprint, AdFly, citation, collaborate, cookies, copyright, malware, phishing, plagiarism, ransomware, SMART rules, spam, virus, watermark	Citation, copyright, malware, phishing, password, personal information, reliable source, spoof, SMART rules, Collaborate, communication, creative commons licence, encrypt, ownership, PEGI ratings, validity	Digital footprint, inappropriate, password, PEGI ratings, phishing, spoof, Data analysis, location sharing, screen time, print screen, secure websites

Three Strands of Computing

	<u>EYFS</u>	<u>Year One</u>	<u>Year Two</u>	<u>Year Three</u>	<u>Year Four</u>	<u>Year Five</u>	<u>Year Six</u>
<u>Computer Science</u>	Instructions Problem solving Beebots	Grouping and Sorting Lego Builders Maze Explorers Coding	Coding	Coding	Coding Logo Hardware Investigators	Coding Game Creator	Coding Text Adventures Networks Binary
<u>Information Technology</u>	What is technology? Taking and deleting pictures Publishing work - 2Paint	Pictograms Animated Stories Spreadsheets	Spreadsheets Questioning Creating Pictures Making Music Presenting Ideas	Spreadsheets Typing Branching Database Simulations Graphing Presenting	Spreadsheets Writing for different audiences Animation Effective Searching Making Music	Spreadsheets Databases 3D Modelling Concept Maps Word Processing	Spreadsheets Blogging Quizzing
<u>Digital Literacy</u>	Screen time Staying safe Username and passwords	Online Safety and Exploring Purple Mash Technology	Online Safety Effective Searching	Online Safety Email	Online Safety	Online Safety	Online Safety

