





## If you want to create and be a visionary, you' re probably going to be working with technology in some way

Steph Curry, three-times NBA Champion

Curriculum Intent	
The intent of our computing curriculum is to prepare our children for a rapidly developing digital world. We recognise that our children need to be given the computational and digital knowledge and skills that prepare them for being able to understand technological change and to be enabled to adapt to future technological developments. This is achieved by a high-quality computing education that equips pupils to use computational thinking and ensures that all pupils are responsible, competent, confident and creative users of their technological world. Our computing curriculum follows the Purple Mash scheme of work and offers opportunities for children to: understand the basic principles and concepts of computer science, practise creating and writing computer programs, solving problems as they arise, evaluate and apply information technology to solve problems. Be responsible, competent, confident and creative users of information technology including using word processing, presentation and spreadsheet tools. Children will learn to use technology safely and respectfully. This will be delivered through computing lessons as well as specific CREW and dedicated online safety lessons.	
Purpose of Study	
<b>Understanding the world we live in</b> 	Children will learn to use technology safely and respectfully and recognise the impact of their online behaviour on the wellbeing of others. They will become responsible, competent, confident and creative users of technology who have a depth of knowledge to apply their skills in the digital world. There will be additional opportunities to reference safer online practices within other lessons where children might use technology such as for email, blogging and online research.
<b>Linked to my life</b> 	Computing has deep links with many other areas of the curriculum and it is our intention that children have opportunities to explore, practice and apply the skills learnt in discrete computing lessons to other subjects. An integral part of our computing curriculum is online safety. Each year group participates in lessons on Internet safety and this is enhanced by everyone taking part in Safer Internet Day in February of each year. Discrete lessons are taught using the ProjectEVOLVE toolkit, which is based on the UKCIS framework "Education for a Connected World" (EFACW). This framework covers knowledge, skills, behaviours and attitudes across eight strands of our online lives from early years right through to eighteen. These outcomes or competencies are mapped to age and progress. The statements guide educators to the areas that they should be discussing with children as they develop their use of online technology. Materials.
<b>Practical Skills</b> 	Children will become digitally literate. Be able to use, and express themselves and develop their ideas through, information and communication technology at a level suitable for the future workplace and as active participants in a digital world. Children have access to desktop pc's, laptops, iPad's, microscopes and data loggers to enhance their skills and knowledge of technology.
<b>Knowledge</b> 	By the time children leave Fieldhead Carr, they will have gained key knowledge and skills in the three main areas of the computing curriculum: computer science (programming and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully). The objectives within each strand support the development of learning across the key stages, ensuring a solid grounding for future learning and beyond. Children will make links with mathematics, science and design technology to gain insights into both natural and artificial systems. They will learn how digital systems work and how to put this knowledge to use through programming
<b>Assessment and recording for long term knowledge retention:</b> Impact of teaching and learning will be determined through SLT reviews, subject lead observations, ProjectEvolve knowledge maps and end of unit assessments.	

Overview of Purple Mash						
Year Groups	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>EYFS</b>	Mouse and Trackpad skills  Safety and Privacy	Keyboard Skills  Technology Around Us	Drawing skills  Hardware  Online Safety day	Robots  Quizzes	Sounds  Online Safety	Photography  Logging on individually
<b>Year 1</b>	Online Safety & Exploring Purple Mash (4 lessons)  Grouping & Sorting (2 lessons)	Pictograms (3 lessons)  Lego Builders (3 lessons)	Maze Explorers (3 lessons)  Technology outside of school (2 lessons)  Online Safety day	Animated Story Books (5 lessons)	Coding (6 lessons)	Spreadsheets (3 lessons)
<b>Year 2</b>	Online Safety (3 lessons)  Coding (6 lessons)	Questioning (5 lessons)  Making Music (3 lessons)	Effective Searching (3 lessons)    Online Safety day	Spreadsheets (4 lessons)	Making Pictures (5 lessons)	Presenting Ideas (4 lessons)
<b>Year 3</b>	Online Safety (3 lessons)  Graphing (2 lessons)  Spreadsheets (3 lessons)	Coding (6 lessons)	Touch typing (4 lessons)  Simulations (3 lessons)  Online Safety day	Email (6 lessons)	Branching Databases (4 lessons)  Graphing (2 lessons)	Presenting (5 lessons)
<b>Year 4</b>	Online Safety (4 lessons)  Effective Searches (3 lessons)	Logo (4 lessons)  Animation (3 lessons)	Coding (6 lesson)    Online Safety day	Spreadsheets (6 lessons)	Writing for different audiences (5 lessons)  Hardware Investigators (2 lessons)	Making Music (4 lessons)
<b>Year 5</b>	Online Safety (3 lessons)  Databases (4 lessons)	Coding (6 lessons)	Word processing (8 lessons)	Spreadsheets (6 lessons)  Concept maps (4 lessons)	3d modelling (4 lessons)	External Devices (6 lessons)

			Online Safety day		Game creator (5 lessons)	
<b>Year 6</b>	Online Safety (2 lessons)  Spreadsheets (5 lessons)	Coding (6 lessons)  Networks (3 lessons)	Quizzing (6 lessons)  Online Safety day	Text Adventures (5 lessons)	Spreadsheets (8 lessons)	Blogging (4 lessons)  Understanding binary (4 lessons)

**Project Evolve** will be used to plan and deliver **Online safety sessions** and the Concept Knowledge Maps used to assess progress against the competences mapped to the ProjectEvolve resources.

Summary of Progression- Computer Science						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>In EYFS, our curriculum is sequenced through experiences, children learn through play opportunities and engage in challenges linked to the EYFS curriculum. The classrooms contain a role play area with a range of technology (iPads, Interactive screen, Big Pad) both functioning and model / broken devices, or a variety of electronic toys such as remote-controlled cars, walkie-talkies and interactive pets. Children tinker and play with these devices during continuous provision.</p> <p>EYFS pupils follow mini MASH computing which links the appropriate resources on Purple Mash to the areas of learning and development from the Statutory Framework for the Early Years Foundation Stage (2021). Communication and Language, Personal, Social and Emotional Development, Physical Development, Literacy Mathematics, Understanding the World, Expressive Arts and Design.</p>	<ul style="list-style-type: none"> <li>Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that an algorithm written for a computer is called a program.</li> <li>Children can work out what is wrong with a simple algorithm when the steps are out of order, e.g. The Wrong Sandwich in Purple Mash and can write their own</li> </ul>	<ul style="list-style-type: none"> <li>Children can explain that an algorithm is a set of instructions to complete a task.</li> <li>When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.</li> <li>Children can create a simple program that achieves a specific purpose.</li> <li>They can also identify and</li> </ul>	<ul style="list-style-type: none"> <li>Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Their design shows that they are thinking of the desired task and how this translates into code.</li> <li>Children can identify an error within their program that prevents it following the desired algorithm and then fix it.</li> <li>Children demonstrate</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Children make more intuitive attempts to debug their own programs.</li> <li>Children's use of timers to achieve repetition effects are becoming</li> </ul>	<ul style="list-style-type: none"> <li>Children may attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts.</li> <li>Children are able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code</li> </ul>	<ul style="list-style-type: none"> <li>Children are able to turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs.</li> <li>Children test and debug their program as they go and use logical</li> </ul>

	<p>simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code.</p> <ul style="list-style-type: none"> <li>• When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program.</li> <li>• Children can for example, interpret where the turtle in 2Go challenges will end up at the end of the program.</li> </ul>	<p>correct some errors, e.g. Debug Challenges: Chimp.</p> <ul style="list-style-type: none"> <li>• Children's program designs display a growing awareness of the need for logical, programmable steps.</li> <li>• Children can identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.</li> </ul>	<p>the ability to design and code a program that follows a simple sequence. They experiment with timers to achieve repetition effects in their programs.</p> <ul style="list-style-type: none"> <li>• Children are beginning to understand the difference in the effect of using a timer command rather than a repeat command when creating repetition effects.</li> <li>• Children understand how variables can be used to store information while a program is executing.</li> <li>• Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing</li> </ul>	<p>more logical and are integrated into their program designs. They understand 'if statements' for selection and attempt to combine these with other coding structures including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information while a program is executing, they are able to use and manipulate the value of variables.</p> <ul style="list-style-type: none"> <li>• Children can make use of user inputs and outputs such as 'print to screen'. e.g. 2Code.</li> <li>• Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing</li> </ul>	<ul style="list-style-type: none"> <li>• Children can translate algorithms that include sequence, selection and repetition into code with increasing ease and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures. They are combining sequence, selection and repetition with other coding structures to achieve their algorithm design.</li> <li>• 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.</li> <li>• Children understand the value of computer networks but are also</li> </ul>	<p>methods to identify the cause of bugs, demonstrating a systematic approach to try to identify a particular line of code causing a problem.</p> <ul style="list-style-type: none"> <li>• 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 utilising such structures, including nesting structures within each other. Coding displays an improving understanding of variables in coding, outputs such as sound and movement, inputs from the user of the program such as button clicks and the value of functions.</li> <li>• Children are able to interpret a program in</li> </ul>
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			<p>some new knowledge of coding structures. For example, 'if' statements, repetition and variables. They make good attempts to 'step through' more complex code in order to identify errors in algorithms and can correct this.</p> <p>E.g. traffic light algorithm in 2Code. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately</p> <ul style="list-style-type: none"> <li>• Children can list a range of ways that the internet can be used to provide different methods of communication. They can use some of these methods of communication, e.g. being able to open, respond to and attach files to emails using 2Email. They can describe appropriate email conventions when communicating in this way.</li> </ul>	<p>some new knowledge of coding structures. For example, 'if' statements, repetition and variables. They can trace code and use step- through methods to identify errors in code and make logical attempts to correct this.</p> <p>e.g. traffic light algorithm in 2Code. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.</p> <ul style="list-style-type: none"> <li>• Children recognise the main component parts of hardware which allow 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 methods of communication is improving.</li> </ul>	<p>aware of the main dangers. They recognise what personal information is and can explain how this can be kept safe.</p> <ul style="list-style-type: none"> <li>• Children can select the most appropriate form of online communications contingent on audience and digital content, e.g. 2Blog, 2Email, Display Boards</li> </ul>	<p>parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole.</p> <ul style="list-style-type: none"> <li>• Children understand and can explain in some depth the difference between the internet and the World Wide Web. Children know what a WAN and LAN are and can describe how they access the internet in school.</li> <li>• Children are able to 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.</li> <li>• Children understand and can explain in some depth the difference</li> </ul>
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						between the internet and the World Wide Web. Children know what a WAN and LAN are and can describe how they access the internet
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Summary of Progression- Digital Literacy						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
EYFS pupils follow mini MASH computing which links the appropriate resources on Purple Mash to the areas of learning and development from the Statutory Framework for the Early Years Foundation Stage (2012). Communication and Language Personal, Social and Emotional Development Physical Development Literacy Mathematics Understanding the World Expressive Arts and Design.	<ul style="list-style-type: none"> <li>Children understand what is meant by technology and can identify a variety of examples both 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.</li> <li>Children understand the importance of keeping information, such as their usernames</li> </ul>	<ul style="list-style-type: none"> <li>Children can effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. Publish example template.</li> <li>Children make links between technology they see around them,</li> </ul>	<ul style="list-style-type: none"> <li>Children demonstrate the importance of having a secure password and not sharing this with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure. They understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as Email in Purple Mash. They know more than one way to report</li> </ul>	<ul style="list-style-type: none"> <li>Children can explore key concepts relating to online safety using concept mapping such as Connect. They can help others to understand the importance of online safety.</li> <li>Children know a range of ways of reporting inappropriate content and contact.</li> </ul>	<ul style="list-style-type: none"> <li>Children have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services.</li> <li>Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.</li> </ul>	<ul style="list-style-type: none"> <li>Children demonstrate the safe and respectful use of a range of different technologies and online services. They identify more discreet inappropriate behaviours through developing critical thinking, e.g. Respond activities. They recognise the value in preserving their privacy when online for their own and other people's safety.</li> </ul>

	<p>and passwords, private and actively demonstrate this in lessons.</p> <ul style="list-style-type: none"> <li>• Children take ownership of their work and save this in their own private space such as their My Work folder on Purple Mash.</li> </ul>	<p>coding and multimedia work they do in school e.g. animations, interactive code and programs.</p> <ul style="list-style-type: none"> <li>• Children know the implications of inappropriate online searches.</li> <li>• 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.</li> </ul>	<p>unacceptable content and contact.</p>			
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Summary of Progression- Information Technology						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
EYFS pupils follow mini MASH computing which links the appropriate resources on Purple Mash to the areas of learning and development from the Statutory Framework for the Early Years Foundation Stage (2012). Communication and Language Personal, Social and Emotional Development Physical Development Literacy Mathematics Understanding the World Expressive Arts and Design.	<ul style="list-style-type: none"> <li>Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.</li> </ul>	<ul style="list-style-type: none"> <li>Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches.</li> <li>Children are able to edit more complex digital data such as music compositions within 2Sequence.</li> <li>Children are confident when creating, naming, saving and retrieving content.</li> <li>Children use a range of media in their digital content including photos, text and sound.</li> </ul>	<ul style="list-style-type: none"> <li>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 such as Purple Mash search or internet-wide search engines.</li> <li>Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question), using software such as 2Graph.</li> <li>Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.</li> </ul>	<ul style="list-style-type: none"> <li>Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level.</li> <li>Children are able to make improvements to digital solutions based on feedback.</li> <li>Children make informed software choices when presenting information and data. They create linked content using a range of software such as 2Connect and 2Publish+.</li> <li>Children share digital content within their community, i.e. using Virtual Display Boards.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Children are able to make appropriate improvements to digital 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 using 2Code. They objectively review solutions from others.</li> <li>Children are able to collaboratively create content and solutions using</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Children use critical thinking skills in everyday use of online communication.</li> <li>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, e.g. 2Blog. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.</li> </ul>



					digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.	
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## Progression of Online Safety within Purple Mash scheme of work – Year 1

Unit	Aims	Success criteria	Unit End Outcomes
1.1 – Online Safety and Exploring Purple Mash	<p>To log in safely.</p> <p>To start to understand the idea of 'ownership' of their creative work.</p>	<p>Pupils can log in to Purple Mash using their own login.</p> <p>Pupils have created their own avatar and understand why they are used.</p> <p>Pupils can add their name to a picture they created on the computer.</p> <p>Pupils are beginning to develop an understanding of ownership of work online.</p> <p>Pupils can save work into the My Work folder in Purple Mash and understand that this is a private saving space just for their work.</p>	<p><b>Emerging:</b> With support, pupils demonstrate an awareness of online safety using their own private usernames and passwords for Purple Mash (Unit 1.1 Lesson 1. Point 6). This can be assisted by using printed login cards. Pupils take ownership of their work and save this in their own private space (Unit 1.1 Lesson 1. Point 16).</p> <p><b>Expected:</b> Pupils demonstrate an understanding of the importance of online safety, using their own private usernames and passwords for Purple Mash (Unit 1.1 Lesson 1. Point 6).</p> <p>Most pupils will be able to demonstrate an understanding of the reasons for keeping their password private including talking about the meaning of 'private information' (Lesson 1) and actively demonstrate this in lessons (Throughout all lessons in Unit 1.1).</p> <p>Pupils take ownership of their work and will be able to save their work, using a memorable file name, to their own personal space on Purple Mash and understand that this can be retrieved later Unit 1.1 Lesson 1 Point 18.</p>

Unit	Aims	Success criteria	Unit End Outcomes
	<p>To learn how to find saved work in the Online Work area and find teacher comments.</p> <p>To learn how to search Purple Mash to find resources.</p>	<p>Pupils can find their saved work in the Online Work area of Purple Mash.</p> <p>Pupils can find messages that their teacher has left for them on Purple Mash.</p> <p>Pupils can search Purple Mash to find resources.</p>	<p>Most pupils will be able to add their name to their picture in lesson 1.</p> <p>In lesson 2, most pupils will be able to explain that their teacher was able to connect with them online to leave a message in Purple Mash. They could contribute to the class discussion relating this to other forms of digital communication.</p> <p>Most pupils will be able to give a simple explanation of the way to word comments online when given the example of their teacher commenting upon their work.</p> <p>Throughout this unit most pupils will be able to contribute their ideas about communicating appropriately and relate online and off-line appropriate behaviour.</p> <p>Most pupils will be able to open Purple Mash and use the search bar within Purple Mash to find resources (lesson 2). They can suggest appropriate words to search with to find the results that they are looking for.</p> <p><b>Exceeding:</b> Pupils demonstrate an understanding of the importance of online safety using their own private usernames and passwords for Purple Mash. Pupils understand the importance of keeping information, such as their usernames and passwords private and actively demonstrate this in lessons.</p> <p>Pupils take ownership of their work and save this in their own private space. Pupils demonstrating greater depth understand the principle but not the terminology of 'intellectual property' e.g., pupils might say 'I am saving my work, in my folder because I have created it and it belongs to me'.</p>
	<p>To become familiar with the types of resources available in the Topics section.</p> <p>To become more familiar with the icons used in the resources in the Topics section.</p> <p>To start to add pictures and text to work.</p>	<p>Pupils will be able to use the different types of topic templates in the Topics section confidently.</p> <p>Pupils will be confident with the functionality of the icons in the topic templates.</p> <p>Pupils will know how to use the different icons and writing cues to add pictures and text to their work.</p>	
	<p>To explore the Tools section of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New.</p> <p>To explore the Games section on Purple Mash.</p> <p>To understand the importance of logging out when they have finished.</p>	<p>Pupils have explored the Tools section on Purple Mash and become familiar with some of the key icons: Save, Print, Open and New.</p> <p>Pupils have explored the Games section and looked at Table Toons (2x tables).</p> <p>Pupils can log out of Purple Mash when they have finished using it and know why that is important.</p>	

Progression of Online Safety within Purple Mash scheme of work – <u>Year 2</u>			
Unit\ Lesson	Aims	Success criteria	Unit End Outcomes
2.2 – Online Safety	<p>To know how to refine searches using the Search tool.</p> <p>To know how to share work electronically using the display boards.</p> <p>To use digital technology to share work on Purple Mash to communicate and connect with others locally.</p> <p>To have some knowledge and understanding about sharing more globally on the Internet.</p>	<p>Pupils can use the search facility to refine searches on Purple Mash by year group and subject.</p> <p>Pupils can share the work they have created to a display board.</p> <p>Pupils understand that the teacher approves work before it is displayed.</p> <p>Pupils are beginning to understand how things can be shared electronically for others to see both on Purple Mash and the Internet.</p>	<p><b>Emerging:</b> With support, pupils are beginning to understand how to use the Purple Mash search bar and know the implications of inappropriate searches (Unit 2.2 Lesson 1. Point 1). With support, they can share their work using the display board (Unit 2.2 Lesson 1. Point 16).</p> <p>Furthermore, using 2Respond activities, the pupils develop an understanding of how to use email safely and responsibly (Unit 2.2 Lesson 2. Point 4). They also know how to report inappropriate content to their teacher.</p> <p><b>Expected:</b> Pupils understand how to use the Purple Mash search bar and know the implications of inappropriate searches (Unit 2.2 Lesson 1. Point 1).</p> <p>Most pupils will be able to explain what a digital footprint is, that it is permanent and their online behaviour influences what it shows (lesson 3).</p> <p>Most pupils will be able to give reasons for keeping their password safe that include protecting their personal information.</p>

Unit \ Lesson	Aims	Success criteria	Unit End Outcomes
	<p>To introduce Email as a communication tool using 2Respond simulations.</p> <p>To understand how we talk to others when they are not there in front of us.</p> <p>To open and send simple online communications in the form of email.</p>	<p>Pupils know that Email is a form of digital communication.</p> <p>Pupils understand how 2Repond can teach them how to use email.</p> <p>Pupils can open and send an email to a 2Respond character.</p> <p>Pupils have discussed their own experiences and understanding of what email is used for.</p> <p>Pupils have discussed what makes us feel happy and what makes us feel sad.</p>	<p>Most pupils will be able to express the good and bad sides of digital technology. In lesson 3, they can give examples of positive effects on life as well as negative.</p> <p>Pupils add their name to work but show a differentiation between full name and first name only when information is to be shared online.</p> <p>Most pupils will be able to share their work to a displayboard (lesson 1). By sharing their work using the display board, pupils begin to understand how things are shared electronically (Unit 2.2 Lesson 1. Point 16).</p> <p>Most pupils will be able to open and respond to simulated emails in 2Email (lesson 2)</p> <p>Most pupils will be able to open and send email responses to simulated emails in 2Email (Unit 2.2 Lesson 2 Point 4).</p> <p>Furthermore, using 2Respond activities the pupils develop an understanding of how to use email safely and responsibly (Unit 2.2 Lesson 2. Point 4). They also know how to report inappropriate content to their teacher.</p>
	<p>To understand that information put online leaves a digital footprint or trail.</p> <p>To begin to think critically about the information they leave online.</p> <p>To identify the steps that can be taken to keep personal data and hardware secure.</p>	<p>Pupils can explain what a digital footprint is.</p> <p>Pupils can give examples of things that they would not want to be in their digital footprint.</p>	<p><b>Exceeding:</b> Pupils understand how to use the Purple Mash search bar (Unit 2.2 Lesson 1. Point 1) and for greater depth can refine searches using Boolean search terms (AND, OR, NOT).</p> <p>They know the implications of inappropriate searches. Pupils can share their work using the display board and begin to understand how things are shared electronically (Unit 2.2 Lesson 1. Point 16). Furthermore, using 2Respond activities, the pupils develop an understanding of how to use email safely and responsibly (Unit 2.2 Lesson 2. Point 4).</p> <p>They also know how to report inappropriate content to their teacher.</p>

## Computing Curriculum FHC

<p>2.5 – Effective Searching, Lesson 2</p>	<p>To gain a better understanding of searching the Internet.</p>	<p>I can identify the basic parts of a web search engine search page.</p> <p>I have learnt to read a web search results page.</p> <p>I can search for answers to a quiz on the Internet.</p>	<p><b>Emerging:</b> Pupils have an awareness that their Internet searches form part of a 'digital footprint'.</p> <p><b>Expected:</b> Pupils can relate the creation of a digital footprint to their search history and make contributions to the class discussion about this in relation to online safety.</p> <p>Pupils know that many search engine companies collect and sell information about users.</p> <p><b>Exceeding:</b> Pupils apply what they know about search engine algorithms to their own online safety and digital footprint. They can understand the implications of search engines selling information and having paid ads at the top of search results.</p>
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Progression of Online Safety within Purple Mash scheme of work – <u>Year 3</u>			
Unit \ Lesson	Aims	Success criteria	Unit End Outcomes
3.2 – Online Safety	<p>To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away.</p> <p>To understand how the Internet can be used to help us to communicate effectively.</p> <p>To understand how a blog can be used to help us communicate with a wider audience.</p>	<p>Pupils understand what makes a good password for use on the Internet. Pupils are beginning to realise the outcomes of not keeping passwords safe.</p> <p>Pupils can contribute to a concept map of all the different ways they know that the Internet can help us to communicate.</p> <p>Pupils have contributed to a class blog with clear and appropriate messages.</p> <p>Extension: Pupils understand that passwords help to limit who can see personal / private / confidential information.</p>	<p><b>Emerging:</b> With prompting, pupils can understand that it is important to have a secure password that is not shared with anyone else (Unit 3.2 Lesson 1. Point 1).</p> <p>Pupils can give a negative example of failure to keep passwords secure (Unit 3.2 Lesson 1. Point 1).</p> <p>Pupils are beginning to identify some of the main things to look for when deciding whether the information on a website is trustworthy or not (Unit 3.2 Lesson 2. Point 2).</p> <p><b>Expected:</b> Pupils understand the importance of a secure password and not sharing this with anyone else (Unit 3.2 Lesson 1 Point 1). Furthermore, pupils understand the negative implications of failure to keep passwords safe and secure and can suggest examples of good and poor passwords (Unit 3.2 Lesson 1 Point 1).</p> <p>When using the internet, pupils can appraise the accuracy of the information on a website and make decisions on whether it is a trustworthy source of information (Unit 3.2 Lesson 2 Point 2).</p> <p>In lesson 1, step 16, pupils have a choice of topics about which to blog. Most pupils will have gained an understanding that it is not acceptable to use the work of others or post images of others without consent.</p>

Unit\Lesson	Aims	Success criteria	Unit End Outcomes
	<p>For pupils to consider if what they read on websites is true?</p> <p>To look at a 'spoof' website.</p> <p>To create a 'spoof' webpage.</p> <p>To think about why these sites might exist and how to check that the information is accurate.</p> <p>To learn about the meaning of age restrictions symbols on digital media and devices.</p> <p>To discuss why PEGI restrictions exist.</p> <p>To know where to turn for help if they see inappropriate content or have inappropriate contact from others.</p>	<p>Pupils understand that some information held on websites may not be accurate or true.</p> <p>Pupils are beginning to understand how to search the Internet and how to think critically about the results that are returned.</p> <p>Pupils have accessed and assessed a 'spoof' website.</p> <p>Pupils have created their own 'spoof' webpage mock-up.</p> <p>Pupils have shared their 'spoof' web page on a class display board.</p> <p>Extension: Pupils evaluate facts from a website and explain how they fact checked the information that was presented.</p> <p>Pupils can identify some physical and emotional effects of playing/watching inappropriate content/games.</p> <p>Pupils relate cyberbullying to bullying in the real- world and have strategies for dealing with online bullying including screenshot and reporting.</p>	<p>Most pupils recognise the PEGI ratings and can give examples of why content is rated and how this protects them (lesson 3)</p> <p>Most pupils can contribute to a class collaborative file about the effects of inappropriate content with useful suggestions (lesson 3).</p> <p>Most pupils can answer the quiz questions in lesson 3, their answers demonstrating that they are developing their understanding of the features of online communication. In lesson 1, their blog posts and comments are appropriate.</p> <p>Most pupils can express the need to tell a trusted adult if they are upset by anything online, in lesson 3 their responses illustrate that they have taken this message onboard.</p> <p>Most pupils will be able to use Purple Mash as a platform for collaboration. Specifically, they will create a spoof website for other pupils to read and share on a class display board (Unit 3.2 Lesson 2).</p> <p>In lesson 2, most pupils can use suitable keywords when trying to verify sources.</p> <p><b>Exceeding:</b> Pupils demonstrating greater depth will be able to give a clear explanation and examples of why having a secure, confidential password is essential and give negative examples of it not being secure and confidential (Unit 3.2 Lesson 1 Point 1).</p> <p>Pupils will be able to appraise the accuracy of information shared on a website and a provide suitable evidence to support their decisions on whether it is trustworthy or not (Unit 3.2 Lesson 2. Point 2).</p>



Unit \ Lesson	Aims	Success criteria	Unit End Outcomes
Unit 3.5 – Email  Lessons 3 and 4	To learn how to use email safely.	<p>Pupils have written rules about how to stay safe using email.</p> <p>Pupils have contributed to classmates' rules.</p> <p>Pupils understand the importance of draft.</p>	<p><b>Emerging:</b> Pupils demonstrate a basic understanding of email conventions and safety (Unit 3.5 Lesson 3 &amp; 4).</p> <p><b>Expected:</b> Pupils understand the importance of staying safe (Unit 3.5 Lesson 3. Point 2) when using email and have demonstrated knowledge of this through the writing of class rules for their conduct when using email systems (Unit 3.5 Lesson 3 Point 5).</p> <p>Pupils apply their knowledge of email safety through the creation of a quiz on staying safe when emailing (Unit 3.5 Lesson 4. Point 3).</p> <p>In lesson 3, pupils can suggest why they need to seek permission before sharing photos.</p> <p>In lesson 1, pupils can refer to what they learnt in Unit 3.2 regarding Online Safety when suggesting the way to communicate appropriately online.</p> <p>Pupils' email messages illustrate that they have taken on board messages about appropriate communication with a regard for their audience. In lesson 3, this forms part of the slideshow discussion., pupils include this as part of their guidelines for step 5.</p> <p>Exceeding: Pupils are not only able to demonstrate an understanding of email conventions and keeping safe but can explain why conventions and certain recognised positive behaviours are expected and the possible consequences of not abiding by them (Unit 3.5 Lessons 3 &amp; 4).</p> <p>Pupils demonstrating greater depth, understand the importance of staying safe (Unit 3.5 Lesson 3. Point 2) when using email and can apply these principles to the related aspects of messaging. Pupils demonstrate their knowledge through taking an active role in the writing of class rules and quiz creation on appropriate conduct when using email systems and can expand on their points to explain their reasoning (Unit 3.5 Lesson 3. Point 5).</p>
		Pupils have created a quiz about email safety which explores scenarios that they could come across in the future.	

Progression of Online Safety within Purple Mash scheme of work – <u>Year 4</u>			
Unit\Lesson	Aims	Success criteria	Unit End Outcomes
4.2 – Online Safety	<p>To understand how pupils can protect themselves from online identity theft.</p> <p>Understand that information put online leaves a digital footprint or trail and that this can aid identity theft.</p>	<p>Pupils know that security symbols such as a padlock protect their identity online.</p> <p>Pupils know the meaning of the term 'phishing' and are aware of the existence of scam websites.</p> <p>Pupils can explain what a digital footprint is and how it relates to identity theft.</p> <p>Pupils can give examples of things that they would not want to be in their digital footprint.</p>	<p><b>Emerging:</b> Pupils contribute their ideas to discussion of spam email (lesson 1), malware (lesson 2) and plagiarism (lesson 3). They have included appropriate content in their Top Tips for Online Safety publication (lesson 2, point 5 and onwards). They have been able to share their work online.</p> <p>With support throughout, pupils show an understand what online safety is. In a small group, they can use 2Connect (Unit 4.2 Lesson 1. Point 3) to map out the key features of online safety. Pupils produce a simple leaflet, postcard, or slideshow etc about online safety, which can then be used as part of presentation to parents (Unit 4.2 Lesson 1. Point 7).</p> <p><b>Expected:</b> Pupils have decided upon the most important online safety messages to communicate and have shared these ideas in their Top Tips for Online Safety publication (lesson 2, point 5 and onwards). They put this knowledge into action in</p>

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	To Identify the risks and benefits of installing software including apps.	<p>Pupils can identify possible risks of installing free and paid for software.</p> <p>Pupils know that malware is software that is specifically designed to disrupt, damage, or gain access to a computer.</p> <p>Pupils know what a computer virus is.</p>	<p>their own online activity.</p> <p>Pupils can explore key concepts relating to online safety using 2Connect Unit 4.2 Lesson 1. Point 3). They help others to understand the importance of online safety (Unit 4.2 Lesson 2. Point 3) and apply their knowledge through the creation of online safety resources which are then used as part of presentation to parents (Unit 4.2 Lesson 1. Point 7).</p> <p>Using the example from lesson 1, pupils can give some examples of things to look out for in an email to ensure that it from a valid source and is not a phishing scam email. They can explain what can be learnt by looking at the padlock details for a website (lesson 1)</p> <p>Most pupils can reflect upon positive and negative aspects of a digital footprint and can give examples of the care they would take when sharing online in relation to their and others' digital footprint (lesson 1).</p> <p>Most pupils can give reasons for taking care when installing apps or software. They know what Malware is and the possible impact of computer viruses and can give recommendations for how best to ensure that they only install valid software as part of their top tips document in lesson 2.</p> <p>Most pupils can give reasons for limiting screen time that include the effect on physical and mental health. In lesson 4, they were able to reflect on their own screen time and collective class screen time and begin to make informed decisions about when to limit their own screen time.</p>
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Unit\Lesson	Aims	Success criteria	Unit End Outcomes
	<p>To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism.</p> <p>To identify appropriate behaviour when participating or contributing to collaborative online projects for learning.</p>	<p>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</p> <p>Pupils know about citing sources that they have used.</p>	<p>Most pupils can explain how plagiarism is stealing, they are beginning to be able to identify the aspects of sharing that would be classed as plagiarism (lesson 3)</p> <p>In lesson 4, pupils were able to include actions for reporting cyberbullying or inappropriate content in their screen time study document.</p> <p>By completing lesson 4, most pupils would have saved both online and locally to a device and are able to explain the differences between the two storage types.</p> <p>Most pupils will be able to identify key messages that should be shared with other pupils and parents about online safety, including identification of reliable content</p>

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	<p>To identify the positive and negative influences of technology on health and the environment.</p> <p>To understand the importance of balancing game and screen time with other parts of their lives.</p>	<p>Pupils can take more informed 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> <p>Pupils can give reasons for limiting screen time.</p>	<p>from websites found via common search engines (Unit 4.2 Lessons 1 &amp; 2).</p> <p>Exceeding: Pupils have decided upon the most important online safety messages to communicate and have shared these ideas in their Top Tips for Online Safety publication (lesson 2, point 5 and onwards). Pupils demonstrate that they are making connections between the positive possibilities that technology provides e.g. collaboration and sharing and the possible downsides of this such as malware and phishing. They actively use this knowledge to support their own online activities safely.</p> <p>Pupils demonstrating greater depth understand the key concepts and implications of the choices they make relating to online safety</p> <p>(Unit 4.2 Lesson 1. Point 3). They help others to understand the importance of online safety (Unit 4.2 Lesson 2. Point 3) and apply their knowledge and approach to staying safe online in all areas of the curriculum (Unit 4.2 Lesson 1. Point 7).</p>
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Unit\Lesson	Aims	Success criteria	Unit End Outcomes
4.7 – Effective Searching, lesson 3	To assess whether an information source is true and reliable.	Pupils can analyse the contents of a web page for clues about the credibility of the information.	<p><b>Emerging:</b> Pupils understand that just because something is on the internet it does not mean it is true. They know that they should consider checking and verifying information.</p> <p><b>Expected:</b> Most pupils will be able to analyse the contents of a web page for obvious clues about the credibility of the information. They will be able to work in small groups to decide collectively if a website has questionable credibility (Unit 4.7, Lesson 3).</p> <p><b>Exceeding:</b> Pupils understand that a single search provider might present a bias, or present information from a flawed source. They seek to corroborate information from other sources using more than one search engine.</p> <p>Pupils know that the results presented to a person on many search engines reflect their previous searches. They realise that this does not give a balanced way to form an opinion about something and presents dangers of being consumed by inaccurate viewpoints and having a misrepresentative world view reinforced.</p>

## Progression of Online Safety within Purple Mash scheme of work – Year 5

Unit\Lesson	Aims	Success criteria	Unit End Outcomes
5.2 – Online Safety	<p>To gain a greater understanding of the impact that sharing digital content can have.</p> <p>To review sources of support when using technology.</p> <p>To review pupils' responsibility to one another in their online behaviour.</p>	<p>I think critically about the information that I share online both about myself and others.</p> <p>I know who to tell if I am upset by something that happens online.</p> <p>I can use the SMART rules as a source of guidance when online.</p>	<p><b>Emerging:</b> Pupils demonstrate a developing understanding of their responsibility to others as well as to themselves when communicating and sharing content online. They know what to do if they are upset by online content and know that there are rules such as the SMART rules to protect them (lesson 1).</p> <p>With support throughout, pupils demonstrate an understanding of what the SMART rules are but may find it difficult to apply all of these to using technology safely and respectfully (Unit 5.1 Lesson 1). They can create a simple comic strip to teach other pupils about online safety (Unit 5.2 Lesson 2).</p> <p><b>Expected:</b> Pupils demonstrate an understanding of their responsibility to others as well as to themselves when communicating and sharing content online.</p> <p>Pupils demonstrate a clear understanding of what the SMART rules are and how they should be applied to using technology safely and respectfully (Unit 5.1 Lesson 1).</p> <p>In lesson 1, step 2, pupils demonstrate that they are developing critical thinking skills in their online experience and know what sorts of inappropriate content should be reported.</p> <p>They can apply their knowledge in the creation of a comic strip to teach other pupils about online safety (Unit 5.2 Lesson 2). When doing image editing in lesson 2, they were able to see both the positive and negative consequences of technological developments including altering images both in terms of impact upon themselves and impact upon others.</p> <p>In lesson 3, pupils can explain why citations must be considered when using the work of others. They know that there is a convention for recording citations and can put this into practice in their work.</p> <p>In lesson 3, step 11 onwards, pupils' contributions demonstrate a growing awareness of the context of communication and an ability to view the communication from the intended audience's point-of-view.</p> <p>Most pupils will be able demonstrate that they understand what is meant by reliable and can build on their ability to identify reliable content. In lesson 3 while completing the citation writing frame, they were able to recognise that it is not a good idea to rely upon only 1 source for information, for example, the Pacific Tree Octopus example.</p> <p><b>Exceeding:</b> Pupils are developing a deeper understanding of the interaction of the</p>
	<p>To know how to maintain secure passwords.</p> <p>To understand the advantages, disadvantages, permissions, and purposes of altering an image digitally and the reasons for this.</p> <p>To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online.</p>	<p>Pupils think critically about what they share online, even when asked by a usually reliable person to share something.</p> <p>Pupils have clear ideas about good passwords.</p> <p>Pupils can see how they can use images and digital technology to create effects not possible without technology.</p> <p>Pupils have experienced how image manipulation could be used to upset them or others even using simple, freely available tools and little specialist knowledge.</p>	

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			positive benefits and negative risks of innovative technology. They take advantage of these technologies in their
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Unit\Lesson	Aims	Success criteria	Unit End Outcomes
			work but are mindful of protecting themselves and others from harm.
	<p>To learn about how to reference sources in their work</p> <p>To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information.</p> <p>Ensuring reliability through using different methods of communication</p>	<p>Pupils can cite all sources when researching and explain the importance of this.</p> <p>Pupils select keywords and search techniques to find relevant information and increase reliability</p> <p>Pupils show an understanding of the advantages and disadvantages of different forms of communication and when it is appropriate to use each.</p>	<p>Pupils demonstrating greater depth have a detailed knowledge of what the SMART rules are and understand how these are applied to using technology safely and respectfully. Furthermore, they understand the implications of improper use of technology and the internet (Unit 5.1 Lesson 1). They can apply their knowledge in the creation of a detailed comic strip to teach other pupils about online safety (Unit 5.2 Lesson 2).</p>

## Progression of Online Safety within Purple Mash scheme of work – Year 6

Unit\ Lesson	Aims	Success criteria	Unit End Outcomes
6.2 – Online Safety	<p>Identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location.</p> <p>Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon.</p> <p>Identify the benefits and risks of giving personal information and device access to different software.</p> <p>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.</p> <p>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.</p> <p>To begin to understand how information online can persist and give away details of those who share or modify it.</p>	<p>Pupils have used the example game and further research to refresh their memories about risks online including sharing location, secure websites, spoof websites, phishing and other email scams.</p> <p>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.</p> <p>Pupils understand how what they share impacts upon themselves and upon others in the long- term.</p> <p>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.</p> <p><b>Extension:</b> Pupils' actions demonstrate that they also feel a responsibility to others when communicating and sharing content online.</p>	<p><b>Emerging:</b> Pupils can refer to the SMART rules to guide them online. They can navigate networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet (using as a source for research or leisure time).</p> <p>They use these networks to collaborate with support using Purple Mash tools such as 2Write and 2Connect.</p> <p>They can use search tools and have an awareness of the need to select sources carefully.</p> <p>They can recognise features online that are risks and those that exist to protect them (lesson 1). Pupils are aware that their actions online have an impact not only on themselves but on others as well. They know to ask for help if they are worried or distressed by something online.</p> <p><b>Expected:</b> Pupils have a good knowledge of the benefits and risks to working collaboratively. They have no trouble navigating networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet (using as a source for research or leisure time). They use these networks to collaborate using Purple Mash tools such as 2Write, 2Connect and 2Blog and can use a variety of networked devices such as webcams, online tools, printers, and tablets in a connected way for their educational benefit.</p> <p>Pupils can use search tools and routinely try to verify the validity and reliability of their sources. They look for corroborating sources for information and enter keywords that help them to choose the best results.</p> <p>Pupils demonstrate an understanding of their responsibility to others as well as to themselves when communicating and sharing content online. They can identify a variety of risks and benefits of technology (lessons 1 and 3). They feel confident in having strategies to help them promote a positive online image of themselves in their digital footprint.</p> <p>Pupils can identify location sharing as a risk to online safety in lesson 1 and could relate this to work done on protecting their identifying private information.</p> <p>Pupils were able to identify the padlock and https as aids to the online safety in lesson 1 and could explain what these means referring to the work that they did on this in previous years' online safety units.</p> <p>Pupils' work in lesson 1, indicates that they have a clear understanding of terms such as Computer virus, Location sharing, phishing scams, spam email, Malware and</p>

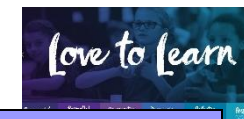


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			Identity theft. In lesson 2, they make sensible contributions to the question of what risks
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Unit \ Lesson	Aims	Success criteria	Unit End Outcomes
	<p>To understand the importance of balancing 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.</p> <p>To identify the positive and negative influences of technology on health and the environment.</p>	<p>Pupils can take more informed 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> <p>Pupils can give reasons for limiting screen time.</p> <p>Pupils can talk about the positives and negative aspects of technology and balance these opposing views.</p> <p><b>Extension:</b> Pupils have an internalised in-depth understanding of the risks and benefits of an online presence.</p>	<p>there are when installing an App and the possible risks hidden in the small print. Pupils' work as digital footprint detectives in lesson 2 demonstrates that they understand the impact of a positive and negative digital footprint and how to take control of their own online virtual image.</p> <p>Most pupils can balance the positive impact of technology with the reasons for limiting screen time that include the effect on physical and mental health. In lesson 3, they were able to reflect on their own screen time and collective class screen time and begin to make informed decisions about when to limit their own screen time. Having studied this aspect in depth in year 5 (lesson 3), pupils routinely include citations in their research work across subjects.</p> <p>They also take care to credit the artist when using images from the Internet. In lesson 2, as part of the discussion surrounding digital footprints, pupils explored the existence of metadata to track the source of images.</p> <p>Having studied this aspect in depth in year 5 (lesson 2, step 11+ and lesson 3, step 6+), pupils take care to credit the artist when using images from the Internet and know how to explore the rights and permissions associated with an image online. They can explain the difference between copyright and privacy and are mindful of both aspects when working with images.</p> <p>Most pupils can make informed choices when communicating online for example selecting the appropriate form of communication for its purpose and audience. They can discuss the use of instant messaging in social contexts, aware of the pros and cons of using such tools.</p> <p><b>Exceeding:</b> Pupils view their own/school devices as a means to access a wealth and mixture of networked and local resources. They use these in an integrated way; for example, they can take information and images from one source, compare them to others, include them in their written work alongside their own original images and text to enhance their own understanding and produce high quality comprehensive work. They are implicitly aware of the benefits and risks to working collaboratively. They navigate networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet and use these networks to collaborate using Purple Mash tools such as 2Write, 2Connect and 2Blog.</p> <p>Pupils can use search tools effectively, routinely verifying the validity and reliability of their sources. They look for corroborating sources for information and enter keywords that help them to choose the most suitable results. They are aware that search engines are also often money-making ventures for their providers and that this has personal privacy implications. They know where to look to investigate their privacy settings on search engines.</p> <p>Pupils have an internalised in-depth understanding of the risks and benefits of an online presence (lessons 1 and 3). Their actions</p>

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			demonstrate that they also feel a responsibility to others when communicating and sharing content online. They feel confident in having strategies to help them promote a positive online image of themselves and deal with issues that might arise in the future.
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Unit \ Lesson	Aims	Success criteria	Unit End Outcomes
6.4 – Blogging, Lesson 4 & 5	To understand how to contribute to an existing blog.  To understand how and why blog posts are approved by the teacher.	Pupils can post comments 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.	<p><b>Emerging:</b> Pupils are aware there is an approval process that their posts go through and demonstrate an awareness of the issues surrounding inappropriate posts and cyberbullying (Unit 6.4 Lesson 4. Point 6). Pupils understand the importance of being respectful on the internet.</p> <p><b>Expected:</b> Pupils recognise the approval process that their posts go through and demonstrate an awareness of the issues surrounding inappropriate posts and cyberbullying (Unit 6.4 Lesson 4. Point 6). Pupils become active contributors to a blog, carefully considering their responses to blog posts to ensure that they are always respectful (Unit 6.4 Lesson 4. Point 12). Pupils understand the implications of inappropriate use of the blog.</p> <p><b>Exceeding:</b> Pupils understand why there is an approval process for any posts and understand the issues surrounding inappropriate posts and cyberbullying (Unit 6.4 Lesson 4. Point 6). Pupils demonstrating greater depth, understand that 2Blog is an introduction to the world of blogging and is a way for the user to become a content creator on the internet. As such the content included in their blog carefully considers the end user (Throughout Unit). They understand the implications of inappropriate use of the blog and how this relates to the real world.</p>
	To understand the importance of commenting on blogs.  To peer-assess blogs against the agreed success criteria.	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.	



Computing Curriculum - EYFS			
End Points EYFS	Key Learning – what children must know, do and remember	Purple Mash Units of Work	Evidence to demonstrate working at the Expected Standard for Year 1
<b>Early Learning Goals</b>			
Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	EYFS pupils follow mini MASH computing which links the appropriate resources on Purple Mash to the areas of learning and development from the Statutory Framework for the Early Years Foundation Stage (2021). <b>Communication and Language.</b> <b>Personal, Social and Emotional Development.</b> <b>Physical Development.</b> <b>Literacy.</b> <b>Mathematics.</b> <b>Understanding the World.</b> <b>Expressive Arts and Design.</b>	Follow Mini MASH online Units for each area of learning.	Pupils access Purple MASH on different types of technology. <b>PC/ laptop</b> Use the mouse or glide pad to paint images using 2Paint. <b>iPads/tablets</b> Explore 2 Paint on the iPad using their fingers to control the painting tools.  <b>Whiteboards/screen</b> See 2Paint being used on a large surface like the whiteboard or screen. <b>Logging in at home</b> Access Purple Mash at home so they can see it being used on technology which may be used in their home. <b>Making choices</b> Children make in their setting using Purple Mash on the different technology which is available for them.

Computing Curriculum – Year 1			
National Curriculum End Points for Key Stage 1	Key Learning – what children must know, do and remember	Purple Mash Units of Work	Evidence to demonstrate working at the Expected Standard for Year 1
<b>Computer Science:</b>			
<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that 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>Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that an algorithm written for a computer is called a program.</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 in Purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code.</p> <p>When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. Children can for example, interpret where the turtle in 2Go challenges will end up at the end of the program.</p>	<p>1.4 – Lego Builders <b>Vocabulary</b> instruction, algorithm, computer, program, debug</p> <p>1.5 – Maze Explorers <b>Vocabulary</b> direction, challenge, arrow, undo, rewind, forward, backwards, right turn, left turn, debug, instruction, algorithm</p> <p>1.7 – Coding <b>Vocabulary</b> action, background, button, character, code block, code design, coder, coding, collision detection, command, design mode, input, object, program, properties, scale, stop command, sound, when clicked, when key</p>	<p><b>Understand</b> an algorithm is a precise set of instructions.</p> <p><b>Know</b> that an algorithm written for a computer to follow is called a program.</p> <p><b>Know</b> that correcting errors in an algorithm is called debugging.</p> <p><b>Understand</b> the function of the direction keys.</p> <p>Create and debug an algorithm.</p> <p><b>Explain</b> what coding means.</p> <p><b>Design</b> and make a simple program using 2Code.</p>
<b>Digital Literacy:</b>			
<p>Recognise common uses of information technology beyond school.</p>	<p>Children understand what is meant by technology and can identify a variety of examples both 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>1.2 – Grouping &amp; Sorting <b>Vocabulary:</b> sort, criteria</p> <p>1.3 – Pictograms <b>Vocabulary:</b></p>	<p><b>Tell</b> you what my personal information is.</p> <p><b>Keep</b> my password private.</p> <p><b>Log in</b> to the student drive.</p> <p><b>Log in</b> to Purple Mash using a personal login.</p> <p><b>Tell</b> an adult I trust when I see something unexpected</p>

## Computing Curriculum FHC



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.	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 such as their My Work folder on Purple Mash.	<p>pictogram, data, collate</p> <p>1.6 – Animated Story Books <b><u>Vocabulary:</u></b> animation, e-book, file, sound effect, display board</p> <p>1.7 – Coding <b><u>Vocabulary:</u></b> action, background, button, character, code block, code design, coder, coding, collision detection, command, design mode, input, object, program, properties, scale, stop command, sound, when click, when key</p> <p>1.8 – Spreadsheets <b><u>Vocabulary:</u></b> arrow keys, backspace, cursor, columns, cells, clipart, count tool, delete key, image toolbar, lock tool, move cell tool, rows, speak tool, spreadsheet</p>	<p>or worrying online. Know why it is important for trusted adults to know what I am doing online. <b>Say</b> well done to my friends when I view their work. Always <b>ask</b> an adult before I go on the internet. <b>Know</b> what these are: clipart, photograph, text, video and sound. <b>Understand</b> what is meant by technology.</p>
<b>Information Technology:</b>			
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.	<p>1.9 – Technology Outside School <b><u>Vocabulary:</u></b> technology</p> <p>1.1 – Online Safety &amp; Exploring Purple Mash <b><u>Vocabulary:</u></b> log in, username, password, avatar, my work, log out, save, notification, topics, tools</p>	<p><b>Sort</b> and <b>group</b> data. <b>Understand</b> that data can be represented in different ways. <b>Create</b> an animated storybook including sound, animation and backgrounds. <b>Use</b> a simple spreadsheet to resolve problems.</p>

Computing Curriculum - Year 2			
National Curriculum End Points for Key Stage 1	Key Learning – what children must know, do and remember	Purple Mash Units of Work	Evidence to demonstrate working at the Expected Standard for Year 2
<b>Computer Science:</b>			
Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	<p>Children can explain that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.</p> <p>Children can create a simple program that achieves a specific purpose. They can also identify and correct some errors, e.g. Debug Challenges: Chimp. Children's program designs display a growing awareness of the need for logical, programmable steps.</p> <p>Children can identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.</p>	<p>2.1 – Coding <b>Vocabulary:</b> action, algorithm, bug, character, code block, code design, command, debug/debugging, design mode, input, object, properties, repeat, scale, timer, when clicked, when key</p>	<p><b>Computer Science:</b> <b>Create</b> a computer program using simple algorithms. <b>Debug</b> simple programs. <b>Predict</b> what objects will do.</p>
<b>Digital Literacy:</b>			
Recognise common uses of information technology beyond school	Children can effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. 2Publish example template.	<p>2.2 Online Safety <b>Vocabulary:</b> search, display-board, internet, sharing, email, attachment, digital footprint</p> <p>2.5 Effective Searching <b>Vocabulary:</b> search, search engine, internet</p>	<p>Always <b>ask</b> an adult before I go on the internet. <b>Know why</b> it is important for trusted adults to know what I am doing online. <b>Know when</b> I am playing a game with a real person on the internet. <b>Talk about why</b> I should only use the internet for a short amount of time. <b>Know what</b> an advert looks like on the Internet. <b>Describe</b> things that happen on line that I must tell an adult about. <b>Know</b> that some things on the Internet are not true. <b>Know</b> what these are: clipart, photograph, text, video, and sound. <b>Know</b> that some things on the Internet are not true. <b>Explain why</b> I need to keep my password private. Talk about why it is important to be kind and polite online and in real life. <b>Know</b> pictures on the Internet belong to the person</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>Children make links between technology they see around them, coding and multimedia work they do in school e.g. animations, interactive code and programs. Children know the implications of inappropriate online searches.</p> <p>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.</p>		

# Computing Curriculum FHC



			<p>who puts them there.  <b>Say</b> well done to my friends when I see their work.  <b>Know that</b> not everyone is who they say they are on the internet.  <b>Refine</b> internet searches.  <b>Understand</b> how we talk to others.  <b>Understand</b> what a digital footprint is.  <b>Understand</b> how the internet searches work</p>
Information Technology			
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	<p>Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches.</p> <p>Children are able to edit more complex digital data such as music compositions within 2Sequence.</p> <p>Children are confident when creating, naming, saving and retrieving content.</p> <p>Children use a range of media in their digital content including photos, text and sound.</p>	<p>2.3 - Spreadsheets  <b>Vocabulary:</b>  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>2.4 - Questioning  <b>Vocabulary:</b>  pictogram, question, data, collate, binary tree, avatar, database</p> <p>2.5 - Effective Searching  <b>Vocabulary:</b>  search, search engine, internet</p> <p>2.6 - Creating Pictures  <b>Vocabulary:</b>  impressionism, palette, pointillism, share, surrealism, template</p> <p>2.7 - Making Music  <b>Vocabulary:</b>  bpm, composition, digitally, instrument, music, sound effects, soundtrack, tempo, volume</p> <p>2.8 - Presenting Ideas  <b>Vocabulary:</b>  concept map, node, animated, quiz, non-fiction, presentation, narrative, audience</p>	<p><b>Use</b> a spreadsheet to solve a mathematical puzzle.  <b>Construct</b> a binary tree to separate different items.  <b>Use</b> a database to answer more complex questions.  <b>Create</b> surrealist art using drawing and clip art.  <b>Create</b> a tune using sound I have recorded and uploaded.  <b>Present</b> my ideas in a variety of ways.</p>



Computing Curriculum - Year 3			
National Curriculum End Points for Key Stage 2	Key Learning – what children must know, do and remember	Purple Mash Units of Work	Evidence to demonstrate working at the Expected Standard for Year 3
<b>Computer Science:</b>			
<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 some simple algorithms work and 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>Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Their design shows that they are thinking of the desired task and how this translates into code. Children can identify an error within their program that prevents it following the desired algorithm and then fix it.</p> <p>Children demonstrate the ability to design and code a program that follows a simple sequence. They experiment with timers to achieve repetition effects in their programs. Children are beginning to understand the difference in the effect of using a timer command rather than a repeat command when creating repetition effects. Children understand how variables can be used to store information while a program is executing.</p> <p>Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'if' statements, repetition and variables. They make good attempts to 'step through' more complex code in order to identify errors in algorithms and can correct this e.g. traffic light algorithm in 2Code. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.</p> <p>Children can list a range of ways that the internet can be used to provide different methods of communication. They can use some of these methods of communication, e.g. being able to open, respond to and attach files to emails using 2Email. They can describe appropriate email conventions when communicating in this way.</p>	<p>3.1 – Coding <b>Vocabulary:</b> action, algorithm, code block, code design, command, control, debug, design mode, event, if, input, output, object, properties, repeat, computer simulation, selection, timer, variable, communication</p> <p>3.5 – Email <b>Vocabulary:</b> email, compose, send, report to the teacher, attachment, address book, save to draft, password, CC</p>	<p><b>Design</b> and write a program that simulates a physical system.</p> <p><b>Make</b> use of X and Y properties of objects. Use the repeat command.</p>
<b>Digital Literacy:</b>			
<p>Use search the technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p>	<p>Children demonstrate the importance of having a secure password and not sharing this with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure. They understand the importance of staying</p>	<p>3.2 – Online Safety <b>Vocabulary:</b> send, report to the teacher, spoof website, PEGI rating</p>	<p><b>Protect my personal information</b> when I do different things online.</p> <p><b>Use the safety features</b> of websites as well as reporting concerns to an adult.</p>

## Computing Curriculum FHC



<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 given goals, including collecting, analysing, evaluating and presenting data.</p>	<p>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>3.5 – Email <b>Vocabulary:</b> communication, Email, compose attachment, address book, save to draft, password, CC internet, blog, concept map, username, website</p>	<p><b>Make</b> good choices about how long I spend online. Know I must <b>check</b> who it belongs to before I copy images or text. Ask an adult before downloading files and games from the internet. Know how to <b>communicate safely</b> with others online and use age appropriate websites to do this. Know that some information on the internet is not accurate. I must <b>think carefully</b> before I rely on it. <b>Understand</b> how a blog can be used to communicate. <b>Evaluate</b> the reliability of websites. Recognise PEGI restrictions. Use email safely. Attach files to email.</p>
Information Technology			
<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>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 such as Purple Mash search or internet-wide search engines. Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question), using software such as 2Graph. Children can consider what software is most suitable</p>	<p>3.2 – Online Safety <b>Vocabulary</b> send, report to the teacher, spoof website, PEGI rating</p> <p>3.3 – Spreadsheets <b>Vocabulary</b> &gt; &lt; =, advance mode, copy and paste, columns, cells, delete key, equals tool, move cell tool, rows, spin tool, spreadsheet</p> <p>3.4 – Touch-typing <b>Vocabulary</b> posture, top row keys, home row keys, bottom row keys, space bar</p> <p>3.5 – Email <b>Vocabulary</b> communication, Email, compose attachment, address book, save to draft, password, CC, internet, blog, concept map, username, website</p> <p>3.6 – Branching Databases <b>Vocabulary</b> branching database</p> <p>3.7 – Simulations <b>Vocabulary</b> simulation</p> <p>3.8– Graphing <b>Vocabulary</b></p>	<p><b>Create</b> pie charts and bar graphs to present information. <b>Describe</b> a cell location <b>Practise and improve</b> typing skills. <b>Create</b> a branching database. <b>Use and bug</b> a branching database. <b>Understand</b> what a computer simulation is.</p>

# Computing Curriculum FHC



		branching database, data, database, question, simulation, graph, field, data, bar chart, block graph, line graph	
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Computing Curriculum - Year 4			
National Curriculum End Points for Key Stage 2	Key Learning – what children must know, do and remember	Purple Mash Units of Work	Evidence to demonstrate working at the Expected Standard for Year 4
<b>Computer Science:</b>			
<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 some simple algorithms work and to detect and correct errors in algorithms and programs.</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 own programs.</p> <p>Children's use of timers to achieve repetition effects are becoming more logical and are integrated into their program designs. They understand 'if statements' for selection and attempt to combine these with other coding structures including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information while a program is executing, they are able to use and manipulate the value of variables. Children can make use of user inputs and outputs such as 'print to screen'. e.g. 2Code.</p> <p>Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'if' statements, repetition and variables. They can trace code and use step-through methods to identify errors in code and make logical attempts to correct this e.g. traffic light algorithm in 2Code. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.</p>	<p>4.1 – Coding <b>Vocabulary:</b> action, alert, algorithm, bug, code design, command, control, debug/debugging, design mode, event, get input, if, if/else, input, output, object, repeat, selection, simulation, timer, variable</p> <p>4.5 – Logo <b>Vocabulary:</b> logo, BK, FD, RT, LT, repeat, SETPC, SETPS, PU, PD</p> <p>4.2 – Online Safety <b>Vocabulary:</b> computer virus, cookies, copyright, digital footprint, email, identity theft, malware, phishing, plagiarism, spam</p> <p>4.7 – Effective searching <b>Vocabulary:</b> Easter egg, internet, internet browser, search, search engine, spoof website, website</p> <p>4.8 – Hardware investigators <b>Vocabulary:</b> motherboard, CPU, RAM, graphics card, network card, monitor, speakers, keyboard, mouse</p>	<p><b>Create</b> a programme that responds to the 'If / Else' command.</p> <p><b>Create</b> an algorithm modelling the sequence of a simple event.</p> <p>Can <b>use the language</b> of Logo.</p> <p>Can <b>use Logo instructions</b> to create a picture. Can <b>structure search queries</b> to locate specific information.</p> <p>Can <b>assess</b> whether an information source is true and reliable.</p> <p><b>Understand</b> the different parts that make up a computer.</p>



## Computing Curriculum FHC

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.	Children recognise the main component parts of hardware which allow 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 methods of communication is improving.		
<b>Digital Literacy:</b>			
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact.	4.2 – Online safety <b>Vocabulary:</b> computer virus, cookies, copyright, digital footprint, email, identity theft, malware, phishing, plagiarism, spam	Use the <b>safety features</b> of websites as well as reporting concerns to an adult. <b>Choose</b> a secure password and appropriate screen name when I am using a website. <b>Make good choices</b> about how long I spend online. <b>Respect</b> what other people present on the internet. <b>Know that</b> anything I share on line can be seen and used by others. <b>Comment positively and respectfully</b> online and through text messages. <b>Recognise</b> that websites use different methods to advertise products. <b>Choose websites</b> and <b>games</b> that are appropriate for my age. <b>Identify the risks</b> and <b>benefits</b> of installing software including apps. Understand that copying someone else's work is called plagiarism.



# Computing Curriculum FHC

Information Technology			
<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 given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level.</p> <p>Children are able to make improvements to digital solutions based on feedback. Children make informed software choices when presenting information and data. They create linked content using a range of software such as 2Connect and 2Publish+. Children share digital content within their community, i.e. using Virtual Display Boards.</p>	<p>4.7 – Effective searching Vocabulary: Easter egg, internet, internet browser, search, search engine, spoof website, website.</p> <p>4.1. – Coding Vocabulary: action, alert, algorithm, bug, code design, command, control, debug/debugging, design mode, event, get input, if, if/else, input, output, object, repeat, selection, simulation, timer, variable</p> <p>4.3 – Spreadsheets Vocabulary: average, advance mode, copy and paste, columns, cells, charts, equals tool, formula, wizard, move cell tool, random tool, rows, spin tool, spreadsheet, timer</p> <p>4.4 – Writing for different audiences Vocabulary: font, bold, italic, underline</p> <p>4.6 - Animation Vocabulary: animation, flipbook, frame, onion skinning, background, play, sound, stop motion, video clip</p>	<p><b>Use</b> the <b>formula</b> wizard. <b>Use</b> a <b>spreadsheet</b> for budgeting. <b>Use text formatting</b> to make a piece of writing fit for purpose. <b>Use 2Connect</b> to mind map ideas. <b>Create</b> a simple animation. <b>Explore</b> stop motion animation.</p>

Computing Curriculum - Year 5			
National Curriculum End Points for Key Stage 2	Key Learning – what children must know, do and remember	Purple Mash Units of Work	Evidence to demonstrate working at the Expected Standard for Year 5
<b>Computer Science:</b>			
<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 some simple algorithms work and 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>Children may attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts. Children are able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code.</p> <p>Children can translate algorithms that include sequence, selection and repetition into code with increasing ease and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures. They are combining sequence, selection and repetition with other coding 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 are also aware of the main dangers. They recognise what personal information is and can explain how this can be kept safe.</p> <p>Children can select the most appropriate form of online communications contingent on audience and digital content, e.g. 2Blog, 2Email, Display Boards.</p>	<p>5.1 – Coding <b>Vocabulary:</b> action, alert, algorithm, bug, code design, command, debug/debugging, design mode, event, get input, if, else, input, output, object, repeat, sequence, selection, simulation, timer, variable</p> <p>5.2 – Online safety <b>Vocabulary:</b> online safety, smart rules, password, reputable, encryption, identity thief, shared image, plagiarism, citations, reference, bibliography</p> <p>5.5 – Game creator <b>Vocabulary:</b> animation, computer game, customise, evaluation, image, instructions, interactive, screenshot, texture, perspective, playability</p>	<p><b>Create</b> a playable, competitive game.</p> <p><b>Create</b> a program to inform others.</p> <p><b>Review</b> and analyse a computer game.</p> <p><b>Create</b> a computer game.</p> <p><b>Evaluate</b> my computer game.</p>
<b>Digital Literacy:</b>			



## Computing Curriculum FHC

<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>Children have a secure knowledge of common online safety rules and can apply this by demonstrating 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>5.2 – Online safety <b>Vocabulary:</b> online safety, smart rules, password, reputable, encryption, identity thief, shared image, plagiarism, citations, reference, bibliography</p>	<p><b>Keep</b> my password and personal information private. <b>Discuss</b> appropriate and inappropriate use of the internet. <b>Support</b> my friends to protect themselves and make good choices online. <b>Explain</b> why I need to protect my computer or device from harm. <b>Explain</b> why I need to protect myself and my friends, and the best way to do this including reporting my concerns to a friend. <b>Know</b> anything I share online can be seen and used by others. The way I use the internet demonstrates I respect the people I share it with. <b>Know</b> that a website has an author who is targeting an audience. <b>Know</b> that some people publish inaccurate information on the internet. <b>Discuss</b> the importance of choosing an age appropriate website or game. <b>Know</b> which resources on the internet I can download and use. <b>Understand</b> the advantages and disadvantages, permissions and purposes of altering an image digitally.</p>
Information Technology			
<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 given goals, including collecting, analysing, evaluating and presenting data and information</p>	<p>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.</p> <p>Children are able to make appropriate improvements to digital 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 using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.</p>	<p>5.1 – Coding <b>Vocabulary:</b> action, alert, algorithm, bug, code design, command, debug/debugging, design mode, event, get input, if, else, input, output, object, repeat, sequence, selection, simulation, timer, variable</p> <p>5.3 – Spreadsheets <b>Vocabulary:</b> average, advance mode, copy &amp; paste, columns, cells, charts, equals tools, formula, formula wizard, move cell formula, random tool, rows, spin tool, spreadsheets, timer</p> <p>5.4 – Databases <b>Vocabulary:</b> avatar, binary tree, charts, collaborative data, database, find, record, sort, group, arrange, statistics, reports, table</p> <p>5.5 – Game creator <b>Vocabulary:</b></p>	<p><b>Create</b> a formula in a spreadsheet. <b>Use</b> text variables to perform calculations. <b>Search</b> for information on a database. <b>Create</b> a database. <b>Explore</b> different viewpoints in 3D modelling. <b>Explore</b> the possibilities of 3D modelling. <b>Create</b> a concept map.</p>



## Computing Curriculum FHC

		<p>animation, computer game, customise, evaluation, image, instructions, interactive, screenshot, texture, perspective, playability</p> <p>5.6 – 3D Modelling <b><u>Vocabulary:</u></b> CAD, modelling, 3D, viewpoint, polygon, 2D, net, 3D printing, points, template</p> <p>5.7 – Concept maps <b><u>Vocabulary:</u></b> audience, collaboratively, concept, concept map, connection, idea, node, thought, visual</p>	
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Computing Curriculum - Year 6			
National Curriculum End Points for Key Stage 2	Key Learning – what children must know, do and remember	Purple Mash Units of Work	Evidence to demonstrate working at the Expected Standard for Year 6
<b>Computer Science:</b>			
<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 some simple algorithms work and 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>Children are able to turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs. Children test and debug their program as they go and use logical methods to identify the cause of bugs, demonstrating a systematic approach to try to identify a particular line of code causing a problem.</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 utilising such structures, including nesting structures within each other. Coding displays an improving understanding of variables in coding, outputs such as sound and movement, inputs from the user of the program such as button clicks and the value of functions. Children are able to 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 understand and can explain in some depth the difference between the internet and the World Wide Web. Children know what a WAN and LAN are and can describe how they access the internet in school.</p> <p>Children are able to 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 understand and can explain in some depth the difference between the internet and the World Wide Web. Children know what a WAN and LAN are and can describe how they access the internet in school.</p>	<p>6.1 – Coding <b>Vocabulary:</b> action, alert, algorithm, bug, code design, command, control, debug, debugging, event, function, get input, if, else, input, output, object, repeat, sequence, selection, simulation, tab, timer, variable</p> <p>6.2 – Online Safety <b>Vocabulary:</b> digital footprint, password, PEGI rating, phishing, screen time, spoof time, spoof website</p> <p>6.4 – Blogging <b>Vocabulary:</b> audience, blog, blog page, blog post, collaborative, icon</p> <p>6.5 – Text adventures <b>Vocabulary:</b> text-based adventure, concept map, debug, sprite, function</p> <p>6.6 – Networks <b>Vocabulary:</b> Internet, World Wide Web, network, local area (LAN), wide area network (WAN), network cables, wireless network</p>	<p><b>Use</b> variables within a game.</p> <p><b>Create</b> a simulation of a room in which devices can be control.</p> <p><b>Understand</b> what a LAN and WAN are.</p> <p><b>Explain</b> what the future might hold for Computing.</p>
<b>Digital Literacy:</b>			



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<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>Children demonstrate the safe and respectful use of a range of different technologies and online 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>	<p>6.2 – Online Safety <b>Vocabulary:</b> digital footprint, password, PEGI rating, phishing, screen time, spoof time, spoof website</p> <p>6.4 – Blogging <b>Vocabulary:</b> audience, blog, blog page, blog post, collaborative, icon</p>	<p><b>Choose</b> a secure password for different purposes. <b>Explain</b> the consequences of spending too much time online or on a game. <b>Protect</b> my computer or device from harm online. <b>Explain</b> the consequences of sharing too much of myself online. <b>Explain</b> the consequences to myself and others for not communicating kindly and respectfully. <b>Check information</b> that I find online. <b>Know</b> that using unreliable information will mislead people. <b>Know</b> that websites can use my data to make money and target their advertising. <b>Always acknowledge</b> the source of materials I use in my work. <b>Ask</b> my friends before I use things I created in my work. <b>Identify</b> the benefits and risks of mobile devices. <b>Understand</b> the importance of balancing screen time. <b>Identify</b> the features of successful blog writing.</p>
<b>Information Technology</b>			
<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 given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>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> <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, e.g. 2Blog. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.</p>	<p>6.1 – Coding <b>Vocabulary:</b> action, alert, algorithm, bug, code design, command, control, debug, debugging, event, function, get input, if, else, input, output, object, repeat, sequence, selection, simulation, tab, timer, variables</p> <p>6.2- Online Safety <b>Vocabulary:</b> digital footprint, password, PEGI rating, phishing, screen time, spoof time, spoof website</p> <p>6.3 – Spreadsheets <b>Vocabulary:</b> average, advance mode, copy and paste, columns, cells, charts, count tool, dice, equals tool, formula, formula wizard, move cell tool, random tool, rows, spin tool, spreadsheet, timer</p>	<p><b>Explore</b> a probability. <b>Create</b> a story based adventure. <b>Code</b> a map based text adventure. <b>Create</b> a picture quiz for young children.</p>

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