



Love of God Love of one another Love of our world Love of learning

Computing Curriculum Overview

Pupils will:

- Use technology creatively,
- Be curious about how technology can be applied in the wider world to help solve problems,
- Be confident digital citizens and know how to stay safe online,
- Understand the principles of coding and debugging and use these to create computer programs,
- Understand how information technology can support them in their everyday lives and wider curriculum,
- Reflect on their learning within computing.

Computing Curriculum overview

At Sacred Heart Catholic Primary School, we deliver the computing National Curriculum objectives through the Purple Mash Scheme of learning. Via Purple Mash, computing is organised into three core strands outlined in the National Curriculum: **computational thinking**, **information technology** and **digital literacy**. These three strands are taught through computing weekly lessons but are sometimes blocked to support progression. In addition, via our class topics, computing is utilised in other areas of the curriculum where children use their digital literacy skills to create content in subjects such as Mathematics, English, Geography, Science and Design and Technology.

Computing is mapped out across the curriculum using the Purple Mash scheme of work focusing on the objectives stated in the National Curriculum. Children in the Early Years have access to a range of devices and remote-controlled toys and resources so that they can explore simple technologies independently and use them in their learning and play. Throughout Key Stage 1, children are taught to use technology purposefully to create, organise, store, manipulate and retrieve digital content. In Key Stage 2, children select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplishes given goals. Children across SACRED HEART SCHOOL are encouraged to use technology where appropriate to support their learning in all subjects and to share their work on relevant platforms.

Curriculum coverage key:



Computer Science






Information Technology



Digital Literacy

**Predominant area of unit indicated – however, most units will include aspects of all strands*

	Autumn (14 weeks)	Spring (11 weeks)	Summer (13 weeks)
Year 1	 Digital Literacy <u>Unit 1.1 Online safety and exploring Purple Mash (4 lessons)</u> Children will:	 Digital Literacy <u>Unit 1.9 Technology outside school (2 lessons)</u> Children will:	 Information Technology <u>Unit 1.3 Pictograms (3 lessons)</u> Children will: <ul style="list-style-type: none"> • discuss and illustrate transport used to travel to school



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	<ul style="list-style-type: none"> learn to log in safely using Purple Mash create their own avatar and understand why they are used add their name to the avatar begin to develop understanding of ownership of work online - save work into 'My Work' folder' in Purple Mash and retrieve find messages their teachers have left - search Purple Mash to find resources use different topic templates become familiar with save, print, open and New log out of Purple Mash when they are finished and understand the importance of this <p>Computer Science</p> <p>Unit 1.2 Grouping and Sorting (2 lessons)</p> <p>Children will:</p> <ul style="list-style-type: none"> sort items using a range of criteria during teaching sort items on the computer using the 'grouping' activities in Purple Mash 	<ul style="list-style-type: none"> understand what is meant by 'technology' consider types of technology used in school and out of school - record 4 examples of where technology is used away from school <p>Computer Science</p> <p>Unit 1.4 Lego Builders (3 lessons) Start Story board</p> <p>Children will:</p> <ul style="list-style-type: none"> compare the effects of adhering strictly to instructions to completing tasks without complete instructions follow and create simple instructions on the computer consider how the order of instructions affects the result. 	<ul style="list-style-type: none"> contribute to the collection of class data use data to create a simple pictogram discuss what the pictograms shows <p>Information Technology</p> <p>Unit 1.6 Animated story boards (5 lessons)</p> <p>Children will:</p> <ul style="list-style-type: none"> know the difference between a tradition book and an e-book use different drawing tools to create a picture add text to a page and format it save their work add animation to their picture add sound and voice recording add additional pages share story book on a class story book display board
Year 2	<p>Practise accessing school laptops / logging in confidently Microsoft</p> <p>Microsoft Word skills:</p> <ul style="list-style-type: none"> creating a new document use the keyboard to type their work learn how to save their work correctly <p>Digital Literacy</p> <p>Unit 2.2 Online Safety (3 lessons)</p> <p>Children will:</p> <ul style="list-style-type: none"> know how to refine searches using a search engine know how to share work electronically have some knowledge and understanding about sharing more 	<p>Computer Science</p> <p>Unit 2.1 Coding (6 lessons)</p> <p>Children will:</p> <ul style="list-style-type: none"> explain that an algorithm is a set of instructions describe the algorithms they create - understand the need for clear instructions compare the Turtle and Character objects use the button object understand how to see the repeat and timer command understand the term debugging and debug simple programs create programs using different kind of objects 	<p>Digital Literacy</p> <p>Unit 2.5 Effective Searching</p> <p>Children will:</p> <ul style="list-style-type: none"> understand the terminology associated with searching identify the basic parts of a web search engine search page -read a web search <ul style="list-style-type: none"> result page create a leaflet to help someone search for information on the internet <p>Information Technology</p> <p>Unit 2.7 Making music</p> <p>Children will:</p>



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	<p>globally on the Internet</p> <ul style="list-style-type: none"> introduce Email as a communication tool open and send Emails understand information online leaves a digital footprint think critically about information left online identify steps to be taken to keep personal data secure <p>Information Technology</p> <p>Unit 2.3 Spreadsheet (4 lessons)</p> <p><i>Children will:</i></p> <ul style="list-style-type: none"> be able to explain what rows and columns are in a spreadsheet open, save and edit a spreadsheet add images add the count tool to count items be able to copy and paste to help make spreadsheets use tools to automatically total rows and columns use a spreadsheet to solve a mathematical puzzle be able to calculate amounts create a table of data on a spreadsheet create a block graph manually 	<ul style="list-style-type: none"> predict what objects will do based on prior knowledge discuss how logic helps them create a more complex program that tells a story 	<ul style="list-style-type: none"> be introduced to making music digitally [different sounds, speed up and slow down tunes, moving sounds] amend a tune by adding sounds consider how music can be used to express feelings change the volume of background sound upload their own sounds [from a bank of sounds] create and upload their own recorded sounds create their own tune
<p>Year 3</p>	<p>Microsoft and Gmail skills</p> <ul style="list-style-type: none"> formatting font e.g. colour, font style, size, bold, italic, underline, strike through insert a picture copy and paste save a document in the correct place - name it with an appropriate name basic keyboard shortcuts e.g. <ul style="list-style-type: none"> ctrl c(copy) – ctrl v(paste) shift and letter to capitalize 	<p>Computer Science</p> <p>Unit 3.1 Coding (6 lessons)</p> <p><i>Children will:</i></p> <ul style="list-style-type: none"> To review coding vocabulary that relates to Object, Action, Output, Control and Event. To use 2Chart to represent a sequential program design.To use the design to write the code for the program To design and write a program that simulates a physical system. To introduce selection in their 	<p>Information Technology</p> <p>Unit 3.4 Touch typing (4 lessons)</p> <p><i>Children will:</i></p> <ul style="list-style-type: none"> To introduce typing terminology. Understand the correct way to sit at the keyboard. To learn how to use the home, top and bottom row keys. To practice and improve typing for home, rows, bottom, and top. To practice the keys typed with the left hand.



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- Orientation of text
- Sort a list into alphabetical order
- Apply these skills in PowerPoint
 - how to add a new slide
 - how to preview their slides in a slideshow

Digital Literacy

Unit 3.2 Online Safety (3 lessons)

Children will learn:

- To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away.
- To understand how the Internet can be used to help us to communicate effectively.
- To understand how a blog can be used to help us communicate with a wider audience.
- For pupils to consider if what they read on websites is true?
- To look at a 'spoof' website.
- To create a 'spoof' webpage.
- To think about why these sites might exist and how to check that the information is accurate.
- To learn about the meaning of age restrictions symbols on digital media and devices.
- To discuss why PEGI restrictions exist.
- To know where to turn for help if they see inappropriate content or have inappropriate contact from others.

Information Technology

Unit 3.7 Simulations (4 lessons)

Children will:

- to consider what simulations are

- programming by using the if command.
- To understand what a variable is in programming (use a timer)
- To use a timer to make characters repeat actions.
- To explore the use of the repeat command and how this differs from the timer.
- To know what debugging means.
- To understand the need to test and debug a program repeatedly.
- To understand the importance of saving periodically as part of the code development process

- To practice the keys typed with the right hand.

Information Technology

Unit 3.8 Graphing (3 lessons)

Children will:

- To enter data into a graph and answer questions.
- To solve an investigation and present the results in graphic form.



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	<ul style="list-style-type: none"> to explore simulations to analyse and evaluate a simulation 		
Year 4	<p>Digital Literacy</p> <p>Unit 4.2 Online Safety (4 lessons)</p> <p>Children will:</p> <ul style="list-style-type: none"> To understand how pupils can protect themselves from online identity theft. Understand that information put online leaves a digital footprint or trail and that this can aid identity theft. To identify the risks and benefits of installing software including apps. To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. To identify the positive and negative influences of technology on health and the environment. To understand the importance of balancing game and screen time with other parts of their lives. <p>Information Technology</p> <p>Unit 4.6 Animation (3 lessons)</p> <p>Children will learn to:</p> <ul style="list-style-type: none"> discuss what makes a good animated film or cartoon and what their favourites are understand how animations are created by hand find out how 2Animate can be created in a similar way using the computer learn about onion skinning in animation add backgrounds and sounds to animations be introduced to 'stop motion' animation share animation on the class display board and by blogging 	<p>Computer Science</p> <p>Unit 4.5 Logo (4 lessons)</p> <p>Children will:</p> <ul style="list-style-type: none"> learn the structure of the language of Logo input simple instructions in Logo Use 2Logo to create letter shapes use the Repeat function in Logo to create shapes use and build procedures in Logo <p>Information Technology</p> <p>Unit 4.7 Effective searching (3 lessons)</p> <p>Children will:</p> <ul style="list-style-type: none"> locate information on the search results page use search effectively to find out information assess whether an information source is true and reliable 	<p>Information Technology</p> <p>Unit 4.3 Spreadsheets (6 lessons)</p> <p>Children will:</p> <ul style="list-style-type: none"> use the formula wizard in the advanced mode to add formulae and explore formatting cells use the timer and spin button create a line graph using a line graph for budgeting explore place value with a spreadsheet create a program with a character that repeats actions use the Repeat Until command to make characters repeat actions program a character to respond to user keyboard input make timers and counting machines using variables to print a new number to the screen every second explore how 2Code can be used to investigate control by creating a simulation know what decomposition and abstraction are in computer science take a real-life situation, decompose it and think about the level of abstraction design a decomposed feature of a real-life situation



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Year 5	<p>Digital Literacy Unit 5.2 Online Safety (3 lessons) <i>Children will learn:</i></p> <ul style="list-style-type: none"> To gain a greater understanding of the impact that sharing digital content can have. To review sources of support when using technology. To review pupils' responsibility to one another in their online behaviour To know how to maintain secure passwords. To understand the advantages, disadvantages, permissions, and purposes of altering an image digitally and the reasons for this. To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online. To learn about how to reference sources in their work To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information Ensuring reliability through using different methods of communication <p>Information Technology Unit 5.6 3D Modelling (4 lessons) <i>Children will:</i></p> <ul style="list-style-type: none"> explore 2Design and Make tool adapt vehicle models explore how to edit the polygon 3D models refine one of their designs to prepare for printing have printed their design onto a 2D net and then create it into a 3D model have explored the possibilities of 3D printing 	<p>Computer Science Unit 5.1 Coding (6 lessons) <i>Children will:</i></p> <ul style="list-style-type: none"> use sketching to design a program and reflect upon their design create code that conforms to their design explain how their program simulates a physical system select the relevant features of a situation to incorporate into their simulation by using decomposition and abstraction reflect upon the effectiveness of their simulation explain what a variable is in programming set/change the variable values appropriately know some ways that text variables can be used in coding create a game which has a timer and score pad use variables to control the objects in the game create loops using the timer and If/else statements include buttons and objects that launch windows to websites and programs code a program that informs others <p>Start word processing Unit 5.8 (see summer term)</p>	<p>Information Technology Unit 5.8 Word processing (8 lessons) <i>Children will:</i></p> <ul style="list-style-type: none"> know what a word processing tool is for add and edit images to a word document know how to use word wrap with images and text change the look of text within a document add features to a document to enhance its look and usability use tables within to present information consider page layout including heading and styles understand how to share Google Docs files
Year	<p>Digital Literacy Unit 6.2 Online Safety (2 lessons)</p>	<p>Information Technology Unit 6.7 Quizzing (6 lessons)</p>	<p>Information Technology Unit 6.3 Spreadsheets (5lessons)</p>



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<p>6</p>	<p><i>Children will:</i></p> <ul style="list-style-type: none">• Identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location.• Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon.• Identify the benefits and risks of giving personal information and device access to different software.• To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user.• To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour.• To begin to understand how information online can persist and give away details of those who share or modify it.• To understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health.• To identify the positive and negative influences of technology on health and the environment. <p>Computer Science Unit 6.5 Text Adventures (4 lessons)</p> <p><i>Children will:</i></p> <ul style="list-style-type: none">• find out what a text adventure is and plan a story adventure• make a story-based adventure• introduce map-based text adventures• code a map-based text adventure	<p><i>Children will:</i></p> <ul style="list-style-type: none">• create a picture- based quiz for young children• learn how to use the question types within 2Quiz• make a quiz that requires the player to search a database• have used their knowledge of quiz types to create a quiz• show quiz based on a curriculum area	<p><i>Children will:</i></p> <ul style="list-style-type: none">• use a spreadsheet to answer probability questions• can create a machine to help work out the price of different items in a sale• use the formula wizard to create formulae• use a spreadsheet to solve a problem• use a spreadsheet to model a real-life situation and come up with solutions• can make practical use of a spreadsheet to help plan actions• use a spreadsheet to model a real-life situation and come up with solutions that can be applied to real life <p>Computer Science Unit 6.6 Networks (3 lessons)</p> <p><i>Children will:</i></p> <ul style="list-style-type: none">• know the difference between the World Wide Web and the internet• find out what a LAN and a WAN are• find out how we access the internet in school• research and find out about the age of the internet• think about what the future might hold
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Computing Curriculum Overview

Computing						
	Y1	Y2	Y3	Y4	Y5	Y6
Intent	Pupils will be able to use technology to create simple programs. They will begin to be confident in using technology creatively.	Pupils will be able to create simple programmes using technology and increase in confidence in using technology creatively.	Pupils will use technology to explore their own creative ideas. They will begin to think about how technology can be used to share ideas online.		Pupils will continue to use technology to develop their creative ideas. They will apply logic to solving problems in their coding and apply the principles of reflected in their computing work.	
Key knowledge	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.		Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 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.			
Key skills	To read code one line at a time.	Create a simple algorithm Identify and correct some errors in a program.	Create a simple algorithm. Identify and fix some errors. Experiment with timers, repetition and 'if then' statements. Think in logical steps to create a program. 'Read' code and predict the outcomes. Open, respond to and send attachments using 2Email.	Using selection and repetition in code. Timers are integrated into their designs. 'If then'; statements are used in combination with other coding structures. Variables are used to store information and change value. User inputs and outputs are made use of. Code is traced through line by line to identify errors.	Using selection and repetition, timers and 'if then' statements with increasing ease. Variables are named used to store information and change value. Code is increasingly organised in a logical way to ensure ease of debugging. User inputs and outputs are made use of. Code is traced through line by line to identify errors.	Using selection and repetition, timers and 'if then' statements with increasing ease. Variables are named used to store information and change value. Code is increasingly organised in a logical way to ensure ease of debugging. User inputs and outputs are made use of. Code is traced through line by line to identify errors.



Computing Curriculum Overview

Progression in computing based on planning and assessment documentation from Purple Mash

End points	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	National curriculum
Computer Science Statement	Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.	Completes a simple program on electronic devices.	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.		Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 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.		Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 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.		KS1 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
Computer Science Outcomes	Plays with a range of materials to learn cause and effect, for example, makes a string puppet using dowels and string to suspend the puppet.		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. 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. 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.	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. 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. 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.	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. 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'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, repetition and use of timers. They make good attempts to 'step through' more complex code in order to identify errors in algorithms and can correct this. e.g. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately. 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.	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. 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. 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 stepthrough methods to identify errors in code and make logical attempts to correct this. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately. 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.	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. 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. 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 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. Children can select the most appropriate form of online communications contingent on audience and digital content, e.g. 2Blog, 2Email, Display Boards.	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. 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. 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.	KS2 Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web Appreciate how [search] results are selected and ranked



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Information technology	Knows how to operate simple equipment, e.g. turns on CD player, uses a remote control, can navigate touch-capable technology with support.	Uses ICT hardware to interact with age appropriate computer software. Can create content such as a video recording, stories, and/or draw a picture on screen.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. 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.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. 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>KS1 Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>KS2 Use search technologies effectively 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>			
Information technology outcomes	Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets.		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.	Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within 2Sequence. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.	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 appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.	Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level. Children 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	Children search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains. Children 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.	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. Children use critical thinking skills in everyday use of online communication. 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.	
Digital literacy	Knows that information can be retrieved from digital devices and the internet.	Develops digital literacy skills by being able to access, understand and interact with a range of technologies.	Recognise common uses of information technology beyond school. 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.	Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact	Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	<p>KS1 Recognise common uses of information technology beyond school 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>			
Digital literacy outcomes		Can use the internet with adult supervision to find and retrieve information of interest to them.	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. 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.	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. 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 online searches. Children begin to understand how things are shared electronically such as posting work to the Purple Mash display board.	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 2Email in Purple Mash. They know more than one way to report unacceptable 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	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.	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>KS2 Understand opportunities [networks] offer for communication and collaboration Be discerning in evaluating digital content Use tech safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns</p>