Through continuous provision, the children will be given the opportunity to explore:

⇒ technology in home corner
⇒ iPads to photograph and observe
⇒ talking pegs to record stories
⇒ technology in the past
⇒ technology (past and present) what is the difference?
⇒ technological inventions

EYFS Computing Curriculum

In order to support the delivery of the computing curriculum, a number of resources are used.

Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, which focuses on the learning and development of children from birth to age five, there are many opportunities for young children to use technology to solve problems and produce creative outcomes. In particular, many areas of the framework provide opportunities for pupils to develop their ability to use computational thinking effectively, such as through undertaking projects involving the concepts and approaches

YEAR 1 COMPUTING & ONLINE SAFETY CURRICULUM

	COMPUTER SCIENCE	INFORMATION TECHNOLOGY	DIGITAL LITERACY

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8	UNIT 9
COMPUTING OBJECTIVES	**Unit 1.1 Online Safety & Exploring Purple Mash** Children are beginning to develop an understanding of ownership of work online. Children can safely log into and log out of a device. To understand the importance of online safety. AUP - what is our class code of conduct for keeping safe online?	**Unit 1.2 Grouping & Sorting** Children can sort various items offline and online using a variety of criteria.	**Unit 1.3 Pictograms** Children understand that data can be represented in pictures. They can contribute to class data collection, representing results.	**Unit 1.4 Lego Builders** Children understand the need to follow accurate instructions knowing they will get the correct result. The consider the order of the instructions.	**Unit 1.5 Maze Explorers** Children can use diagonal direction keys to move the characters in the right direction. Children can challenge themselves by using the longer algorithm.	**Unit 1.6 Animated Story Books** Children know the difference between an actual book and an e-book. They are able to add illustrations and text to a page. They can explore animation, sound and backgrounds.	**Unit 1.7 Coding** Children can give and follow instructions. Children can draw symbols to represent instructions. Children can arrange code blocks to create a set of instructions. They can plan and execute their design.	**Unit 1.8 Spreadsheet** Children know what a spreadsheet is. They are able to understand the difference between rows and columns. Children can use a spreadsheet to help work out a fair way to share items.	**Unit 1.9 Technology outside school** Children understand what is meant by 'technology'. Children have considered types of technology used in school and out of school.
ONLINE SAFETY OBJECTIVES		**Online behaviour.** How should we behave when we use the computers and we are online? Autumn 1 - Online Safety Day		**Online behaviour** Key resource - Digi Duck (also social networking/ sharing information) Spring 1 - Online Safety Day		**Keeping personal information safe.** What information would you share with family, friends, strangers? Respect - what does this word mean? How can we show respect to each other? Safe searching when using the internet.			**Chicken Clicking** - a book about Online Safety (downloaded in curriculum support) Commercial use of the internet.
ADDITIONAL RESOURCES	**In order to support the delivery of the computing curriculum, a number of resources are used.**	purple mash 2simple		Ten:Ten Resources		ONLINE SAFETY BOOST		UK Safer Internet Centre	

YEAR 2 COMPUTING & ONLINE SAFETY CURRICULUM

| COMPUTER SCIENCE | INFORMATION TECHNOLOGY | DIGITAL LITERACY |

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8
COMPUTING OBJECTIVES	Unit 2.1 Coding — Children can explain that an algorithm is a set of instructions. They know that the computer needs instructions to follow. Create a program that uses: timers, buttons and collision.	Unit 2.2 Online Safety & Exploring Purple Mash — Children can use the search facility to refine searches on Purple Mash by year group and subject - apply to using the internet. Children can give examples of things that they would not want to be in their digital footprint. Children know that Email is a form of digital communication.	Unit 2.3 Spreadsheet — Revisit rows and columns. They can open, edit and save a spreadsheet. Children can add the count tool to count items. Children can create a table of data on a spreadsheet then create a block graph manually.	Unit 2.4 Questioning — Children understand that the information on pictograms cannot be used to answer more complicated questions. They understand what is meant by a binary tree. To us a database to answer simple questions.	Unit 2.5 Effective Searching — Children can recall the meaning of key Internet and searching terms. Children can identify the basic parts of a web search engine search page. The children can share their knowledge of the Internet and Effective Searching. Produce something for a wider audience.	Unit 2.6 Creating Pictures — Children can describe the main features of impressionist art. They can produce digital art based on this. To look at pointillism, f Piet Mondrian, William Morris, Pattern, Surrealism and eCollage.	Unit 2.7 Making Music — Children understand what 2Sequence is and how it works. They have explored how to speed up and slow down tunes. They can add sounds into a tune already created and understand how music can convey emotion.	Unit 2.8 Presenting Ideas — Children can present a story in three different ways: a mind map, a quiz, as an e-book and a fact file. They can apply this to both fiction and non-fiction writing. They can collect, organise and present data and information.
ONLINE SAFETY OBJECTIVES	AUP - what is our class code of conduct for keeping safe online?		Is everything on the Internet true? Reliability of information. How do we know what people say is true? Fact and Opinion. SPRING 1 ONLINE SAFETY DAY			Keeping personal information safe. Gaming and personal information and grooming. Resource – Lee and Kim Animal Magic Think You Know Resource. Examining and discussing the children's use of the web.		
ADDITIONAL RESOURCES	In order to support the delivery of the computing curriculum, a number of resources are used.	purple mash 2simple		Ten:Ten Resources		ONLINE SAFETY BOOST		UK Safer Internet Centre

YEAR 3 COMPUTING & ONLINE SAFETY CURRICULUM

| | COMPUTER SCIENCE | INFORMATION TECHNOLOGY | DIGITAL LITERACY |

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8	UNIT 9
COMPUTING OBJECTIVES	**Unit 3.1 Coding** Children can read and explain a flowchart. They can use a flowchart to create a computer program. Develop to use timer commands, repeat command. Run, test and debug programs.	**Unit 3.2 Online Safety** Children understand what makes a good password for use on the Internet. Children are beginning to realise the outcomes of not keeping passwords safe. They understand how to search the Internet and how to think critically about the results that are returned.	**Unit 3.3 Spreadsheet** Children can use a spreadsheet program to automatically create charts and graphs from data. They can use the 'more than', 'less than' and 'equals' tools to compare different numbers.	**Unit 3.4 Touch Typing** Children understand the names of the fingers. They understand what is meant by the home, bottom, and top rows. Children can use two hands to type the letters on the keyboard.	**Unit 2.5 Email** Children can list a range of different ways to communicate. Children can open an email and respond to it. They send emails to their classmates. Children have written rules about how to stay safe using email and have publicised rules. Children can attach work to an email. They can respond to a series of emails CC & BCC.	**Unit 3.6 Branching Databases** Children understand how YES/NO questions are structured and answered. They can choose a topic for a branching database. They know how to use and debug databases.	**Unit 3.7 Simulations** Children know that a computer simulation can represent real and imaginary situations. They can use a simulation to try out different options and to test predictions. Recognising patterns and identify rules.	**Unit 3.8 Graphing** Children can set up a graph with a given number of fields. They can present the results in a range of graphical formats. Children can use the sorting option to make analysis of their data easier.	**Unit 3.9 Presenting with Microsoft PowerPoint** Children know what PowerPoint is. They can: Add animation, media, add timings and format the text and appearance.
ONLINE SAFETY OBJECTIVES	**AUP** - what is our class code of conduct for keeping safe online?		**Online behaviours** – **Trusted Adults** Reporting/ inappropriate contact. Possible resource – The Smart Crew -Who should you tell? - Should you meet?			**Gaming** - what are the pros and cons of gaming? Screen time and mental well-being. In app purchases.		**Reliability of information online** Can penguins fly? (reliability of information). Possible resource BBC videos and 'All about explorers'.	
ADDITIONAL RESOURCES	**In order to support the delivery of the computing curriculum, a number of resources are used.**	purple mash 2simple		Ten:Ten Resources		ONLINE SAFETY BOOST		UK Safer Internet Centre	

YEAR 4 COMPUTING & ONLINE SAFETY CURRICULUM

	COMPUTER SCIENCE	INFORMATION TECHNOLOGY	DIGITAL LITERACY

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8	UNIT 9
COMPUTING OBJECTIVES	**Unit 4.1 Coding** Children can plan an algorithm for their scene and use 2Code to program it. Their program includes: IF statement Coordinates Repeat until statements Children can explain what a variable is in programming.	**Unit 4.2 Online Safety** Children know that security symbols such as a padlock protect their identity online. • Children know the meaning of the term 'phishing' and are aware of the existence of scam websites. Children know what a computer virus is. They understand copyright and plagiarism. Healthy screen time.	**Unit 4.3 Spreadsheet** Children can add a formula to a cell to automatically make a calculation in that cell. Children can use: timer, random number and spin button. Focus on line graphs. They know they are practical tools.	**Unit 4.4 Writing for different audiences** Children can look at and discuss a variety of written material where the font size and type are tailored to the purpose of the text. They can write for two different styles.	**Unit 4.5 Logo** Children know what the common instructions are in 2Logo and how to type them. They can write 2Logo instructions for a word of four letters. Children can find the most efficient way to draw shapes using repeat.	**Unit 4.6 Animation** Children have put together a simple animation using paper to create a flick book. They can use the Onion Skin tool to create an animated image. Explore stop motion animation.	**Unit 4.7 Effective Searching** Children can structure search queries to locate specific information. Children can analyse the contents of a web page for clues about the credibility of the information.	**Unit 4.8 Hardware** Children can name the different parts of a desktop computer and explain function. They can create a leaflet to show the function of computer parts. PRACTICAL	**Unit 4.9 Making Music** Children can explain how a piece of music makes them feel. Children can explain what tempo is, and how changing it can change the mood of a piece of music. Explore Busy Beats.
ONLINE SAFETY OBJECTIVES	**AUP** - what is our class code of conduct for keeping safe online?		**Online behaviours** - Keeping safe when communicating and collaborating using the class blog. Issues linked to social networking including online bullying.		**Gaming** - what are the pros and cons of gaming? Screen time and mental well-being. What age? Appropriate ages for sites and games? Children to understand law and what age we are legally aloud to do things. Does this change online?			**Communication and collaboration** (activities) – linked to the positive use of the Internet and networks Blog, email, Skype, VC	
ADDITIONAL RESOURCES	In order to support the delivery of the computing curriculum, a number of resources are used.	**purple mash** 2simple		**Ten:Ten Resources**		**ONLINE SAFETY BOOST**		**UK Safer Internet Centre**	

YEAR 5 COMPUTING & ONLINE SAFETY CURRICULUM

COMPUTER SCIENCE | INFORMATION TECHNOLOGY | DIGITAL LITERACY

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8
COMPUTING OBJECTIVES	**Unit 5.1 Coding** Children can plan an algorithm modelling the sequence of traffic lights. Children can create and use functions in their code to make their programming more efficient. They know some ways that text variables can be used in coding.	**Unit 5.2 Online Safety** Children critically about the information that they share online both about themselves and others. They know they can tell a trusted adult if they are upset by something online. Children think critically about what they share online, even when asked by a usually reliable person to share something.	**Unit 5.3 Spreadsheet** Children can create a formula in a spreadsheet to convert m to cm. Children can apply this to creating a spreadsheet that converts miles to km and vice versa. They can use a spreadsheet to model a real-life situation.	**Unit 5.4 Databases** Children understand the different ways to search a database. Children can create their own database on a chosen topic. They understand how to word questions so that they can be effectively answered their database.	**Unit 5.5 Game Creator** Children can review and analyse a computer game. They can recognise what makes a good game. They can design the setting for their game so that it fits with the selected theme. Refine and evaluate.	**Unit 5.6 3D Modelling** Children know what the 2Design and Make tool is for. They can explore how to edit the polygon 3D models to design a 3D model for a purpose. Children can refine one of their designs to prepare it for printing.	**Unit 5.7 Concept Maps** Children can make connections between thoughts and ideas. They can see the importance of recording concept maps visually. They understand: 'concept maps', 'stage', 'nodes' 'connections'.	**Unit 5.8 Word Processing with Microsoft Word** Children know what a word processing tool is for. Children know how to add text and images to a word document. Explore tables, bullet points and shapes.
ONLINE SAFETY OBJECTIVES	**AUP** - what is our class code of conduct for keeping safe online?		**Malware** – including definitions of trojans and viruses. Key resource BBC Bitesize How can we keep our devices clean?			**Keeping personal information safe**. Gaming and personal information and grooming. Using media channels such as YouTube – inappropriate content/ age appropriateness /viral videos. Safe Social Networking.		
ADDITIONAL RESOURCES	In order to support the delivery of the computing curriculum, a number of resources are used.	purple mash 2simple		Ten:Ten Resources		ONLINE SAFETY BOOST	UK Safer Internet Centre	

YEAR 6 COMPUTING & ONLINE SAFETY CURRICULUM

COMPUTER SCIENCE	INFORMATION TECHNOLOGY	DIGITAL LITERACY

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8	UNIT 9
COMPUTING OBJECTIVES	**Unit 6.1 Coding** Children can plan a program which includes a timer and a score. They can create a program that makes use of functions. Children can follow flowcharts to create and debug code. To design their own text game. adventure game	**Unit 6.2 Online Safety** Children 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. They understand how what they share impacts upon themselves in the long-term.	**Unit 6.3 Spreadsheet** Children can create a spreadsheet to answer a mathematical question relating to probability. They can use the formula wizard to create formulae. They can use a spreadsheet for a real situation	**Unit 6.4 Blogging** Children understand how a blog can be used as an informative text. Children can create a blog or blog post with a specific purpose. They understand the approval process that their posts go through. Children understand surrounding inappropriate posts and cyberbullying.	**Unit 6.5 Text Adventure** Children can map out a story-based text adventure. Children can contrast a map-based game with a sequential story-based game. Children can use coding concepts of functions to explore text.	**Unit 6.6 Networks** Children know the difference between the World Wide Web and the internet. Children know about their school network. They have researched and found out about Tim Berners-Lee. Major changes during their life	**Unit 6.7 Quizzing** Children have used the 2DIY activities to create a picture-based quiz. They have ideas about what sort of questions are best suited to the different question types. Children have used 2Quiz to make a quiz.	**Unit 6.8 Binary** Children can explain how all data in a computer is saved in the computer memory in a binary format. They can count up from 0 in binary using visual aids if needed. They can convert numbers to binary.	**Unit 6.9 Spreadsheet with Microsoft** Children know some uses of a spreadsheet tool. They can use a spreadsheet to carry out basic calculations including + - x ÷ formulae.
ONLINE SAFETY OBJECTIVES	**AUP** - what is our class code of conduct for keeping safe online?				**Cyberbullying** - Online Bullying including griefing – CBBC resources and Professor Garfield Cyberbullying. What is trolling? How can it be prevented?				Children to use Book Creator or PPT to create an Online Safety Portfolio. What are the key messages they need to take with them to high school?
ADDITIONAL RESOURCES	In order to support the delivery of the computing curriculum, a number of resources are used.								