

Computing Curriculum Overview

Year R	Topic	Vocabulary	I can statements	EYFS Framework /Links to National Curriculum areas	Activities
Autumn 1 st	<ul style="list-style-type: none"> Myself 	<ul style="list-style-type: none"> Keyboard, letters, type, Chromebook, screen, delete, spacebar, forward, backwards, go, turn, left, right, undo, erase, save. 	<p>I can tell you what a keyboard is and how to locate relevant keys.</p> <p>I can tell you what a mouse is and use basic mouse skills, such as moving and clicking.</p> <p>I can use a simple online paint tool to create digital art.</p> <p>I can use devices with care.</p>	<p><u>EYFS Framework</u></p> <p>Fine motor skills: Use a range of tools Begin to show accuracy and care when drawing.</p> <p>Creating with materials: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</p> <p>Managing Self Be confident to try new activities and show independence, resilience and perseverance in the face of challenge</p> <p>National Curriculum Links Key Stage 1 Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Understand what algorithms are.</p>	<ul style="list-style-type: none"> Using a keyboard to write name. Beebots Making faces on Purple Mash
Autumn 2 nd	<ul style="list-style-type: none"> Traditional Tales and Celebrations. 	<ul style="list-style-type: none"> Keyboard, letters, type, Chromebook, screen, delete, spacebar, forward, backwards, go, turn, left, right, undo, erase, save. 	<p>I can use a mouse to make the cursor move around the computer screen where I want it to go.</p> <p>I can use a mouse accurately to click and drag objects on the screen.</p> <p>I can use a laptop touchpad.</p> <p>I can select colours when painting on the computer.</p> <p>I can use a computer to draw with different widths of pens.</p> <p>I can try the different tools that I can draw with on the computer.</p> <p>I can use the erase button.</p> <p>I can plan a route for a toy vehicle.</p> <p>I can make a floor robot move.</p> <p>I can control the forwards, backwards and rotation of a floor robot one step at a time.</p> <p>I can use devices with care.</p>	<p>Fine motor skills: Use a range of tools Begin to show accuracy and care when drawing.</p> <p>Creating with materials: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</p> <p>Managing Self Be confident to try new activities and show independence, resilience and perseverance in the face of challenge</p> <p>National Curriculum Links Key Stage 1 Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Understand what algorithms are.</p>	<ul style="list-style-type: none"> Creating digital firework pictures Using beebots to retell a story
Spring 1 st	<ul style="list-style-type: none"> People Who Help Us and Instructions. 	<ul style="list-style-type: none"> Keyboard, letters, type, Chromebook, screen, delete, spacebar, forward, backwards, go, turn, left, right, undo, erase, safe. Search engine, technology, safe search, computer, laptop, tablet, mouse, speakers, phone, Alexa. 	<p>I can use a mouse to make the cursor move around the computer screen where I want it to go.</p> <p>I can use a mouse accurately to click and drag objects on the screen.</p> <p>I can use a laptop touchpad.</p> <p>I can find all the letters of the alphabet on a keyboard.</p> <p>I can put spaces between words in my typed work.</p> <p>I can talk about what technology is used at home.</p> <p>I can talk about what technology is used outdoors.</p> <p>I can talk about what technology is used in the world around me.</p> <p>I can use devices with care.</p>	<p>Fine motor skills: Use a range of tools Word reading</p> <p>Understanding the World: Past and Present Talk about the lives of the people around them and their roles in society</p> <p>National Curriculum Links Key Stage 1 Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<ul style="list-style-type: none"> Researching Online How does equipment help us
Spring 2 nd	<ul style="list-style-type: none"> Past and Present 	<ul style="list-style-type: none"> screen, delete, spacebar, forward, backwards, go, turn, left, right, undo, erase, save. 	<p>I can select colours when painting on the computer.</p> <p>I can use a computer to draw with different widths of pens.</p> <p>I can try the different tools that I can draw with on the computer.</p> <p>I can use the erase button.</p> <p>I can plan a route for a toy vehicle.</p> <p>I can make a floor robot move.</p> <p>I can control the forwards, backwards and rotation of a floor robot one step at a time.</p> <p>I can use a touchscreen device purposefully.</p> <p>I can use devices with care.</p>	<p>Fine motor skills: Use a range of tools Begin to show accuracy and care when drawing.</p> <p>Creating with materials: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</p> <p>Managing Self Be confident to try new activities and show independence, resilience and perseverance in the face of challenge</p> <p>National Curriculum Links Key Stage 1 Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Understand what algorithms are.</p>	<ul style="list-style-type: none"> Using beebots to retell a story Using iPad and 2paint to draw a setting



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Summer 1 st	<ul style="list-style-type: none"> Countries and Environments. 	<ul style="list-style-type: none"> Keyboard, letters, type, Chromebook, screen, delete, spacebar, forward, backwards, go, turn, left, right, undo, erase, safe search engine, technology, safe search, computer, laptop, tablet, mouse, speakers, phone, Alexa. 	<p>I can use a mouse to make the cursor move around the computer screen where I want it to go. I can use a mouse accurately to click and drag objects on the screen. I can click the correct mouse button to play games on the computer. I can use a touchscreen device purposefully. I can use devices with care.</p>	<p>Fine motor skills: Use a range of tools Begin to show accuracy and care when drawing. Creating with materials: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function Managing Self Be confident to try new activities and show independence, resilience and perseverance in the face of challenge</p> <p>National Curriculum Links Key Stage 1 Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully</p>	<ul style="list-style-type: none"> Explore maps of the world.
Summer 2 nd	<ul style="list-style-type: none"> Animals 	<ul style="list-style-type: none"> screen, delete, spacebar, forward, backwards, go, turn, left, right, undo, erase, safe search. 	<p>I can use devices with care. I can get to the Purple Mash page on my device at school and at home. I can login to Purple Mash and Mini Mash using my username and password. I can save work in my own folder when I am using Purple Mash. I can talk about what photos show. I can take photos using a digital device. I can use a touchscreen device purposefully. I can find all the letters of the alphabet on a keyboard. I can use a laptop touchpad I can use a mouse accurately to click and drag objects on the screen.</p>	<p><u>EYFS Framework</u> Fine motor skills: Use a range of tools Begin to show accuracy and care when drawing. Creating with materials: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function Managing Self Be confident to try new activities and show independence, resilience and perseverance in the face of challenge The Natural World Explore the natural world around them, making observations and drawings of animals and plants.</p> <p>National Curriculum Links Key Stage 1 Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully</p>	<ul style="list-style-type: none"> Research zoo animals Espresso - Label farm animals Purple Mash - Farm pairs Espresso - Label farm animals Take photos of Minibeasts from hunt Purple Mash - Create own minibeast Research dinosaurs on laptops

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Autumn 1 st	<ul style="list-style-type: none"> Online Safety Exploring Purple Mash – Digital Literacy 	<ul style="list-style-type: none"> Log in, log out, avatar, my work, username, password, notification, home page, 2dos, tools, save, topics. 	<p>I can keep my password private.</p> <p>I can tell you what personal information is.</p> <p>I can create an avatar and know what it is used for.</p> <p>I can save my work and begin to understand ownership of online work.</p> <p>I can tell an adult when I see something unexpected or worrying online.</p> <p>I can talk about why it's important to be kind and polite.</p> <p>I can recognise an age appropriate website.</p> <p>I can agree and follow sensible e-Safety rules.</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.	<ul style="list-style-type: none"> Learning to log in safely. Exploring features of Purple Mash. Using topic area of Purple Mash
Autumn 2 nd	<ul style="list-style-type: none"> Grouping and Sorting – Computer Science Pictogram – Information Technology 	<ul style="list-style-type: none"> Sort, criteria 	<p>I can talk about the different ways in which information can be shown.</p> <p>I can use technology to collect information, including photos, video and sound.</p> <p>I can sort different kinds of information and present it to others.</p> <p>I can add information to a pictograph and talk to you about what I have found out.</p>	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	<ul style="list-style-type: none"> Sorting items offline Sorting items online Understanding data in pictures Collecting data Using
Spring 1 st	<ul style="list-style-type: none"> Maze Explorers – Computer Science Safer Internet Day 	<ul style="list-style-type: none"> Direction, challenge, arrow, undo, rewind, forward, backwards, right turn, left turn, debug, instructions, algorithm. 	<p>I can give instructions to my friend and follow their instructions to move around.</p> <p>I can describe what happens when I press buttons on a robot.</p> <p>I can press the buttons in the correct order to make my robot do what I want.</p> <p>I can describe what actions I will need to do to make something happen and begin to use the word algorithm.</p> <p>I can begin to predict what will happen for a short sequence of instructions.</p> <p>I can begin to use software/apps to create movement and patterns on a screen.</p> <p>I can use the word debug when I correct mistakes when I program.</p>	<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>	<ul style="list-style-type: none"> Using directional keys and beginning to explore algorithms. Safer Internet Day activities
Spring 2 nd	<ul style="list-style-type: none"> Animated Story Books – Information Technology 	<ul style="list-style-type: none"> Animation, e-book, font, file, sound effect, image, display board. 	<p>I can be creative with different technology tools.</p> <p>I can use technology to create and present my ideas.</p> <p>I can use the keyboard or a word bank on my device to enter text.</p> <p>I can save information in a special place and retrieve it again.</p>	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	<ul style="list-style-type: none"> Using 2create a story app Drawing and creating using Chromebook Adding animations and sounds Learning to copy and paste
Summer 1 st	<ul style="list-style-type: none"> Coding – Computer Science and Information Technology 	<ul style="list-style-type: none"> Action, algorithm, background, code, command, debug, event, execute, input, instructions, object, output, run, scale, sound, code window, when clicked, scene. 	<p>I can give instructions to my friend and follow their instructions to move around.</p> <p>I can describe what happens when I press buttons on a robot.</p> <p>I can press the buttons in the correct order to make my robot do what I want.</p> <p>I can describe what actions I will need to do to make something happen and begin to use the word algorithm.</p> <p>I can begin to predict what will happen for a short sequence of instructions.</p> <p>I can begin to use software/apps to create movement and patterns on a screen.</p> <p>I can use the word debug when I correct mistakes when I program.</p>	<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>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<ul style="list-style-type: none"> Giving and follow instructions Create programmes using block code Use event, action and object code blocks
Summer 2 nd	<p>Different types of technology – Digital Literacy</p> <ul style="list-style-type: none"> Lego Builders 	<ul style="list-style-type: none"> Technology Instruction, algorithm, computer, programme, debug 	<p>I can recognise the ways we use technology in our classroom.</p> <p>I can recognise ways that technology is used in my home and community.</p> <p>I can use links to websites to find information.</p> <p>I can begin to identify some of the benefits of using technology.</p> <p>I can give instructions to my friend and follow their instructions to move around.</p> <p>I can describe what happens when I press buttons on a robot.</p> <p>I can press the buttons in the correct order to make my robot do what I want.</p> <p>I can describe what actions I will need to do to make something happen and begin to use the word algorithm.</p> <p>I can begin to predict what will happen for a short sequence of instructions.</p> <p>I can begin to use software/apps to create movement and patterns on a screen.</p> <p>I can use the word debug when I correct mistakes when I program.</p>	<p>Recognise common uses of information technology beyond school</p> <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>	<ul style="list-style-type: none"> Create and follow instructions Continue to build on algorithm knowledge by understanding importance of code order Debugging programmes

Year 2	Topic	Vocabulary	I can statements	National Curriculum	Activities
Autumn 1 st	<ul style="list-style-type: none"> Coding – Computer Science 	<ul style="list-style-type: none"> Action, algorithm, background, code, command, debug, event, execute, input, instructions, object, output, run, scale, sound, code window, when clicked, scene, design mode, collision, button, nesting, predict, properties, timer, test, text. 	<p>I can give instructions to my friend (using forward, backward and turn) and physically follow their instructions.</p> <p>I can tell you the order I need to do things to make something happen and talk about this as an algorithm.</p> <p>I can program a robot or software to do a particular task.</p> <p>I can look at my friend's program and tell you what will happen.</p> <p>I can use programming software to make objects move.</p> <p>I can watch a program execute and spot where it goes wrong so that I can debug it.</p>	<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>	<ul style="list-style-type: none"> Creating algorithms Using collision detection code block Debugging
Autumn 2 nd	<ul style="list-style-type: none"> Online Safety – Digital Literacy 	<ul style="list-style-type: none"> Search, email, sharing, attachment, digital footprint, internet, display board. 	<p>I can explain why I need to keep my password and personal information private.</p> <p>I can describe the things that happen online that I must tell an adult about.</p> <p>I can talk about why I should go online for a short amount of time.</p> <p>I can talk about why it is important to be kind and polite online and in real life.</p> <p>I know that not everyone is who they say they are on the Internet.</p>	<p>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p>	<ul style="list-style-type: none"> Searching and sharing Email Digital Footprint
Spring 1 st	<ul style="list-style-type: none"> Effective Searching – Digital Literacy and Information Technology Questioning - Digital Literacy and Information Technology 	<ul style="list-style-type: none"> Internet, search, search engine. Pictogram, question, collate, binary tree, database. 	<p>I talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder.</p> <p>I can make and save a chart or graph using the data I collect.</p> <p>I can talk about the data that is shown in my chart or graph.</p> <p>I am starting to understand a branching database.</p> <p>I can tell you what kind of information I could use to help me investigate a question.</p>	<p>Recognise common uses of information technology beyond school</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<ul style="list-style-type: none"> Understanding the internet and search engines Searching the internet Sharing knowledge of effective searching - leaflet
Spring 2 nd	<ul style="list-style-type: none"> Making Music - Information technology 	<ul style="list-style-type: none"> Bpm, composition, digitally, instrument, music, tempo, soundtrack, volume. 	<p>I can tell you why I use technology in the classroom.</p> <p>I can tell you why I use technology in my home and community.</p> <p>I can identify benefits of using technology including finding information, creating and communicating.</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<ul style="list-style-type: none"> Using computer programmes to sequence music To upload files
Summer 1 st	<ul style="list-style-type: none"> Creating Pictures - Information Technology 	<ul style="list-style-type: none"> Impressionism, pointillism, save, create, paint, tools, template, share, display board. 	<p>I can use technology to organise and present my ideas in different ways.</p> <p>I can use the keyboard on my device to add, delete and space text for others to read.</p> <p>I can tell you about an online tool that will help me to share my ideas with other people.</p> <p>I can save and open files on the device I use.</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<ul style="list-style-type: none"> Explore 2paint a picture Create art using digital technologies
Summer 2 nd	<ul style="list-style-type: none"> Presenting Ideas – Information Technology 	<ul style="list-style-type: none"> Technology, concept map, quiz, presentation, node, animation, narrative, audience, non-fiction. 	<p>I can tell you why I use technology in the classroom.</p> <p>I can tell you why I use technology in my home and community.</p> <p>I am starting to understand that other people have created the information I use.</p> <p>I can identify benefits of using technology including finding information, creating and communicating.</p> <p>I can talk about the differences between the Internet and things in the physical world.</p> <p>I talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder.</p> <p>I can make and save a chart or graph using the data I collect.</p> <p>I can talk about the data that is shown in my chart or graph.</p> <p>I am starting to understand a branching database.</p> <p>I can tell you what kind of information I could use to help me investigate a question.</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<ul style="list-style-type: none"> Presenting information in different digital ways Using appropriate software to present information such as importing pictures, files and creating quizzes.

Adaptive Strategies

- Use ipads and other touchscreen devices instead of chromebooks
- SEN usb keyboards that can be plugged in with larger keys and picture keys
- Use of plug in mouse instead of touch pad
- Unplugged computing- exploring coding through written code blocks instead
- Use of beebots and coding critters
- Ensuring that passwords or usernames are simple. Children can have edited usernames to help or picture and number passwords if needed.
- Headphones
- Changing colours or background on purple mash to make it easier for the child to see
- Making the screen or text larger
- Edit the mouse pointer to make it larger, different shape, tracer