

Progression of Computing

Subject content	<p>EYFS: Understanding the world Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. <i>Taken from Educational Programmes, Statutory framework for the early years foundation stage 2021</i></p> <p>KS1 Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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 • 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, 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. 		
Skills	Reception	Year 1	Year 2
<p>Understanding Technology</p> <p>Recognise common uses of information technology beyond school.</p>	<p>To recognise that a range of <i>technology</i> is used in places such as homes and schools.</p> <p>To explore a range of technology used in their family/community.</p>	<p>To recognise and can give examples of common uses of <i>information technology</i> they encounter in their daily routine.</p>	<p>To recognise common uses of <i>information technology</i> beyond school, including those which they don't frequently encounter in their daily routine.</p> <p>To understand what an <i>email</i> is and how it can be used. To participate in writing a class email and understand how to be polite. To know when it is ok to open an email and when to tell an adult. To understand what to do if an email is received from an unknown person. To understand the need to keep usernames and passwords safe.</p> <p>To understand that computers are not intelligent but can appear to be when following algorithms. They can share examples of this.</p>
<p>E-safety</p> <p>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p>	<p>To understand that you have to be safe while using the <i>internet, computer and iPads</i> and to follow the rules for using these</p>	<p>To be able to <i>search safely</i> online using Kiddle. To know what to do if they see something unpleasant or scary <i>online</i>.</p> <p>To understand how people can present themselves online and how to safely do this themselves. To understand what to share and what to keep private when online.</p> <p>To begin to understand that information about themselves may be personal and they can choose who to share it with.</p> <p>To begin to manage their online activity safely, recognising which information should be kept private with support.</p>	<p>To know and apply the rules of <i>safe searching</i>.</p> <p>To know that they should not deliberately look for or send anything unpleasant online.</p> <p>To understand how to create a safe image for their own identity online. To know how to keep safe when playing games online.</p> <p>To understand that information about themselves may be personal and they can choose who to share it with.</p> <p>To manage their online activity safely, recognising which information should be kept private with support. They can explain what it means to stay safe online and begin to identify some of the potential risks associated with the online world.</p>

		<p>To begin to communicate safely and respectfully using a digital device, making links to their behaviour in the physical world.</p> <p>To start to develop strategies for managing concerns about online content or contact; seeking help and support when needed.</p>	<p>To communicate safely and respectfully using a range of digital devices, making links to their behaviour in the physical world.</p> <p>To develop strategies for managing concerns about online content or contact; seeking help and support when needed.</p>
<p>Programming</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 Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs.</p>	<p>To understand that you can press buttons to make something work and it will do the same thing every time because it understands a very special computer language.</p>	<p>To understand that programs execute by following precise and unambiguous instructions.</p> <p>To use logical reasoning to predict the behaviour of simple programs.</p> <p>To create, debug and implement instruction (simple algorithms) as programs on a range of digital devices.</p> <p>To understand that digital devices follow precise and unambiguous instructions (algorithms).</p> <p>To understand that digital devices simulate real situations.</p>	<p>To use logical reasoning to predict and explain the behaviour of simple programs.</p> <p>To understand that algorithms are implemented as programs on digital devices.</p> <p>To create and debug programs to achieve specific goals.</p> <p>To use the principles of logical reasoning to plan and predict the behaviour of simple programs.</p> <p>To solve real and imaginary problems on and off screen.</p>
<p>Digital Literacy</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>To use ICT hardware to interact with age appropriate computer software.</p> <p>To complete a simple program on a computer, e.g. simple city, iPad Apps.</p> <p><u>Presentation</u> To begin to use a simple program (e.g. 2paint) or app to present their ideas in drawing.</p> <p><u>Communication</u> To know what to do if something they receive upsets them.</p> <p><u>Audio</u> To begin to make their own recordings using digital devices (microphones, tablets, talking postcards etc.) with support.</p> <p><u>Digital art</u></p>	<p><u>Data handling</u> To begin to interpret and construct simple pictograms, tally charts, block diagrams and simple tables prepared by the teacher.</p> <p>To ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p> <p>To ask and answer questions about totalling and comparing categorical data.</p> <p><u>Presentation</u> To begin to use 2Publish to combine different media (such as text and images) to present what they have learned and share their ideas with others, with the support of an adult.</p> <p><u>Communication</u> To actively participate when the teacher models sending simple messages though a monitored messaging tool (e.g. Email). To know what to do if something they receive upsets them.</p>	<p><u>Data handling</u> To interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p> <p>To ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p> <p>To ask and answer questions about totalling and comparing categorical data.</p> <p><u>Presentation</u> To use 2Publish to combine different media (such as text and images) to present what they have learned and share their ideas with others.</p> <p><u>Communication</u> To send simple messages to others in their class / year group through a monitored messaging tool (e.g. email).</p> <p>To begin to use messaging tools to ask questions more purposefully, making sure messages are clear</p>

	<p>To be encouraged to discover and explore what their fingers can do on, for example, a tablet, showing enjoyment and ability to talk about what they have done.</p> <p><u>Film making</u> To actively participate when the teacher takes photograph and models using basic film making techniques and use this to retell class stories.</p>	<p><u>Audio</u> To learn how to make simple audio equipment work</p> <p>To begin listen to and learn from sounds embedded in audio books, websites, sound buttons and other tools.</p> <p>To make their own recordings using digital devices (microphones, tablets, talking postcards etc.) with support.</p> <p><u>Digital art</u> To discover and explore what their fingers can do on, for example, a tablet, showing enjoyment and ability to talk about what they have done.</p> <p><u>Film making</u> To explore creating films using an iPad, choosing preferred transition and similar basic visual effects.</p> <p>To begin to use basic film making techniques to retell familiar stories or those developed as part of a class / group.</p> <p>To begin to use a camera to take a photograph.</p>	<p>and appropriate. They know what to do if something they receive upsets them.</p> <p><u>Audio</u> To listen to and learn from sounds embedded in audio books, websites, sound buttons and other tools.</p> <p>To make their own recordings using digital devices (microphones, tablets, talking postcards etc.) and use these recordings purposefully, e.g. podcast</p> <p><u>Digital art</u> To create digital art, on a tablet, showing enjoyment and ability to talk about what they have done.</p> <p>To experiment with how to create a range of effects - shades, patterns and results using different eTools.</p> <p><u>Film making</u> To begin to create films from still photos using software such as PhotoStory3, with the support of an adult.</p> <p>To contribute to discussions about the choice of audio to accompany a film and can talk about how different pieces of music make them feel.</p> <p>To use basic film making techniques to retell familiar stories or those developed as part of a class / group. This includes both live action filming and stop-motion animation.</p>
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How will we implement computing in our school?

- Planned teaching of computing each term through **enquiry** lessons, which is progressive, and provide purpose and meaning for children.
- Children will use technology in their classrooms as part of their **daily life at school** to apply skills taught. For example, interactive phonics games, maths games on iPads, sharing daily class routine, independent selection in COOL time.
- **Evidence** of computing can be seen in individual pupil enquiry books (KS1), on Tapestry, class learning journey displays, enquiry organisers and on enquiry medium term planning.
- Technology will be integral to **support children in their learning**. E.g. use of iPads and laptops in the research centre to enquire.
- Children will apply computational thinking to solve problems across the curriculum. E.g. children suggest using technology in **enquiry**.
- Children will be able to **express themselves** through information and communication technology, e.g. Enquiry art work.
- Children will be able to discuss how to **stay safe on the internet**.
- Annual **e-safety assemblies** and information for parents.
- All children, and staff, are to adhere to **an Acceptable Use Policy** (AUP) in line with CAM guidance.
- Staff will have a shared understanding of how to keep our children safe through our **e-safety knowledge** and all staff will know the procedures for **reporting incidents**.