

Computing				
Vision and approach for Computing		Key Concepts	Content and Sequencing	
<p>In this digital age, it is vital that we support our pupils to be safe, proficient, effective and adaptable in all areas of Computing. With an ever-changing digital landscape, we must prepare children to become proficient users of technology today and the future.</p> <p>A spiral approach will aid children in learning, developing and retaining the knowledge and skills they need across the three stands of computing. Computer Science will involve much tinkering, problem solving and trial and error, a perfect setting to grow their perseverance and resilience. In Information Technology, we strive to develop children's fundamental computer skills and enable learners to be competent and confident in creating a broad range of digital content in order to achieve a goal. In Digital Literacy we believe it is paramount to equip our children with the skills and knowledge to be safe, discerning users of computer systems and to begin to develop an understanding of, not only how to use computer systems, but how they work.</p>		<p>Computer Science Coding and Programming Computational Thinking Information Technology Word Processing Multimedia Data handling Digital Literacy Online Safety Online Communication Technology in our lives</p>	<p>Our computing provision is underpinned by the requirements of the National Curriculum and Early Years Foundation Stage. Children cover three fundamental strands; Computer Science, Information Technology and Digital Literacy. Computer Science focuses on computational thinking, coding and programming and computer networks. Information Technology develops knowledge and skills for the creation of digital content including word processing, data handling, video creation, photography and digital art, animation, sound and presenting information. Digital Literacy builds the skills and knowledge required to be an effective, safe and discerning user of a range of computer systems through the areas of Self-image and identity, Online Relationships, Online Bullying, Health Wellbeing & Lifestyle, Privacy & Security, Copyright and Ownership, Managing Online Information.</p> <p>Learning is sequenced through a spiral curriculum so that knowledge and skills are revisited and built upon throughout a child's time at school. E.g. Exploring floor robots in reception, creating and debugging simple programs using bluebots and ScratchJr in KS1, then writing and debugging more complex programs with Crumble or Scratch in KS2 using skills such as decomposition, repetition and selection. Each half term children will spend time on at least one aspect of Digital Literacy and developing their fundamentals through word processing. Alongside this children will also engage in an area of Computer Science or Information Technology.</p>	
Curriculum Drivers				
Motivation	Reflection	Perseverance	Independence	Curiosity
<p>Motivation is shown through pupils' enthusiasm to explore technology and solve problems using digital tools. Children are engaged by interactive activities such as coding, creating digital content, and using educational software, which make learning both fun and meaningful. They feel motivated when they can see immediate results from their work, such as a working program or animation. Supportive teaching, clear goals, and opportunities to be creative help pupils build confidence and curiosity, encouraging them to develop their computing skills further.</p>	<p>Reflection is shown through pupils reviewing their digital work and thinking about how it can be improved. Children are encouraged to test and debug their programs, identifying errors and considering how to fix them. They may also evaluate how effective their digital creations are, such as presentations or animations, and suggest changes. Through this process, pupils develop problem-solving skills and a better understanding of how to refine their work, building confidence in their ability to improve.</p>	<p>Perseverance is shown through pupils' determination to keep working through challenges, especially when coding or solving technical problems. Children are encouraged to debug errors, test different solutions, and keep trying when their programs do not work as expected. They learn that mistakes are a normal part of the process and an opportunity to improve. With support from teachers and structured tasks, pupils build resilience and confidence, developing the persistence needed to succeed in computing.</p>	<p>Children have many opportunities to explore and apply skills with independence. As they grow in confidence they will generate their own enquiries and conclusions as they problem solve.</p>	<p>Children will show curiosity and fascination through learning how to interact with and use a range of software in order to achieve their goal. As children tinker in coding lessons they will use their curiosity to investigate and help them to problem solve.</p>
Links with Mathematics and English	Progressive		Inclusive	
<p>Opportunities to apply their English skills:</p> <ul style="list-style-type: none"> ➤ Digital research ➤ Word processing ➤ Publishing work <p>Opportunities to apply their Mathematics skills:</p>	<ul style="list-style-type: none"> ➤ Children will be able to apply skills with increasing independence. ➤ Children apply their previously gained understanding through future units. ➤ Each year children revisit and build upon knowledge for each digital literacy stand. They also revisit and develop their skills in Computer Science and Information Technology. 		<ul style="list-style-type: none"> ➤ Partner work supports engagement, leads to improved experiences, increased confidence and task completion, particularly benefits girls research shows. Also supports PP SEN. ➤ Children have opportunities to 'tinker' enabling them to explore at their own pace. ➤ Children's starting point are identified using assessment tools and teaching builds on prior knowledge. ➤ The curriculum is practical, collaborative and experiential to engage all, particularly know to benefit PP. ➤ Verbal, specific feedback given to pupils, particularly PP – proven to support PP learners. ➤ Resources, examples and models are often used to aid understanding and scaffold learning. 	

<ul style="list-style-type: none">➤ Collect data, make predictions, analyse results, and present information graphically.➤ Maths games are used to consolidate key areas of the syllabus.	<ul style="list-style-type: none">➤ Children are able to tackle more complex problems each year as they learn to apply their new knowledge and skills.➤ Computing will be evident in floor books or saved on SeeSaw.	<ul style="list-style-type: none">➤ Many activities and end goals include space for freedom and creativity, allowing for differentiation by outcome➤ Adjustments can be made if necessary to support SEN and disadvantaged pupils including; unplugged tasks, personalisation e.g. paw patrol outfit for bluebots, quieter spaces, breaking learning down into further bite size chunks, adding or remixing worked examples to develop understanding and engage whilst reducing cognitive overload.➤ Sensory output, active participation supports all learners, including SEN
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