

Our Computing Provision

Intent

At Plympton St. Maurice Primary School, our Computing curriculum is designed to inspire and equip children with the essential skills and knowledge needed to thrive in an increasingly digital world. We believe that Computing is not just about learning to use technology; it's about understanding its potential, engaging with it creatively, and using it responsibly.

Our Computing curriculum is guided by the following key principles:

1. **Digital Literacy:** We are committed to ensuring that every child, regardless of their background or prior experience, develops a strong foundation in digital literacy. Our curriculum provides inclusive learning opportunities that cater to diverse learning needs, empowering all children to become confident users of technology.
2. **Core Computer Skills:** We focus on building essential skills in three key areas: **computer science, information technology, and digital literacy**. Through engaging lessons, children learn to code, create algorithms, and understand how technology works, while also developing critical skills for navigating the digital landscape safely and responsibly.
3. **Creativity and Innovation:** We encourage children to harness their creativity through Computing. Our curriculum provides opportunities for hands-on projects, such as coding games, designing digital artwork, and creating multimedia presentations, allowing children to express themselves and innovate through technology.
4. **Real-World Relevance:** We connect Computing concepts to real-world applications, helping children understand how technology impacts their daily lives and future careers. Through collaborative projects, coding challenges, and problem-solving tasks, children learn to apply their knowledge in meaningful contexts.
5. **Critical Thinking and Problem Solving:** Our approach promotes enquiry-based learning, encouraging children to think critically and solve problems using technology. By engaging in open-ended tasks and challenges, children develop resilience, adaptability, and the ability to work collaboratively to overcome obstacles.
6. **Responsible Digital Citizenship:** We prioritise teaching children about **online safety, privacy, and ethical use of technology**. Our curriculum instils a sense of responsibility in children, empowering them to make informed choices and engage positively in online communities.

By implementing this intent, we strive to create a stimulating environment where every child can explore the exciting world of Computing, develop vital skills, and cultivate a lifelong love for learning in technology. We recognise the importance of working in partnership with parents and the community to support our children's journeys as digital citizens.

Implementation

The computing curriculum at Plympton St. Maurice Primary School consists of key strands that collectively enhance understanding of technology. **Computer Science** lays the theoretical groundwork in computation, programming, algorithms, and problem-solving, fostering critical thinking and innovation. **Information Technology** emphasises the practical application of software and hardware in managing data and addressing real-world challenges. **Digital Literacy** equips children with skills to effectively use digital tools, evaluate information, and communicate online. **Online Safety** teaches responsible behaviour and strategies for protecting personal information, ensuring a safer digital experience. Together, these strands form a well-rounded curriculum that prepares children for the digital age.

To support our curriculum, we utilise the **Purple Mash computing scheme** across Early Years, KS1, and KS2, ensuring a progressive learning experience tailored to each age group. In **Early Years**, Purple Mash introduces foundational skills through engaging, interactive activities that foster curiosity and creativity. As children transition to **KS1**, they build on these skills by exploring more complex concepts in a playful manner, focusing on simple programming, digital storytelling, and online safety. In **KS2**, the curriculum becomes more advanced, encouraging critical thinking and problem-solving through projects that involve coding, data analysis, and digital content creation. This progression ensures that children develop a comprehensive understanding of computing, with each stage preparing them for the next.

The curriculum is delivered through a combination of direct instruction, hands-on activities, and collaborative projects. Teachers employ a variety of teaching strategies, including interactive demonstrations, group discussions, and practical exercises, to engage children and foster a deep understanding of computing concepts.

Additionally, the eight strands of our Online Safety curriculum, which abides by the Education for a Connected World framework, covers essential aspects of digital life. **Self-image and identity** explores the differences between online and offline personas and media influence on self-perception. **Online relationships** focus on respectful communication and consent in digital interactions. **Online reputation** addresses the impact of digital footprints and effective content management. **Online bullying** examines digital aggression and provides reporting strategies linked to legislation. **Managing online information** emphasises critical evaluation of digital content and ethical publishing. **Health, well-being, and lifestyle** investigate technology's effects on mental and physical health, while **privacy and security** cover personal data protection and strategies against online threats. Finally, **copyright and ownership** discuss content ownership and the importance of respecting creators' rights. Together, these strands create a comprehensive framework for navigating the complexities of online safety.

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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<p>Online Safety is taught across all year groups under these strands.</p>	 <p style="font-size: small;">Self-Image and Identity</p>	 <p style="font-size: small;">Online Relationships</p>	 <p style="font-size: small;">Online Reputation</p>	 <p style="font-size: small;">Online Bullying</p>	 <p style="font-size: small;">Managing Information Online</p>	 <p style="font-size: small;">Health, Well-being and Lifestyle</p>	 <p style="font-size: small;">Privacy and Security</p>	 <p style="font-size: small;">Copyright and Ownership</p>	<p>taught across all year groups under these strands.</p>
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<p><u>Mouse & Trackpad Skills</u> <u>Keyboard Skills</u> <u>Drawing Skills</u> <u>Robots</u> <u>Sounds</u> <u>Photography</u></p>	<p>Unit 1.3 Pictograms (Information Technology) Unit 1.4 Lego Builders (Computer Science) Unit 1.5 Maze Explorers (Computer Science)</p>	<p>Unit 3.4 Touch Typing (Information Technology) Unit 2.1 Coding (Computer science) Unit 2.3 Spreadsheets (Information Technology)</p>	<p>Unit 3.1 Coding (Computer science) Unit 3.4 Touch Typing (Information Technology) Unit 3.9 Microsoft PowerPoint (Information Technology)</p>	<p>Unit 4.1 Coding (Computer science) Unit 4.3 Spreadsheets (Information Technology) Microsoft Word (Information Technology)</p>	<p>Unit 5.1 Coding (Computer science) Unit 5.3 Spreadsheets (Information Technology)</p>	<p>Unit 6.1 Coding (Computer science) Unit 6.5 Text Adventures (Computer Science, Information Technology) Unit 6.6 Networks (Computer Science)</p>
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<p><u>Technology Around Us</u> <u>Hardware Safety and Privacy</u> <u>Quizzes</u></p>	<p>Unit 1.6 Animated Story Books (Information Technology) Unit 1.7 Coding (Computer Science) Unit 1.9 Technology Outside of School (Digital Literacy)</p>	<p>Unit 2.4 Questioning (Information Technology) Unit 2.5 Effective Searching (Information Technology, Digital Literacy)</p>	<p>Unit 3.5 Email (Computer science, Information Technology, Digital Literacy) Unit 3.6 Branching Databases (Information Technology) Unit 3.8 Graphing (Information Technology)</p>	<p>Unit 4.6 Animation (Information Technology) Unit 4.7 Effective Search (Computer Science, Information Technology) Unit 4.8 Hardware Investigators (Computer Science)</p>	<p>Unit 5.4 Databases (Information Technology) Unit 5.6 3D Modelling (Information Technology) Unit 5.8 Word Processing (Information Technology)</p>	<p>Unit 6.8 Understanding Binary (Computer Science) Unit 6.9 Microsoft Excel (Information Technology)</p>
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Impact

At Plympton St. Maurice Primary School, our Computing curriculum empowers children with a robust understanding of digital technology and its applications, fostering critical thinking and problem-solving skills from Early Years through Key Stage 2. Through engaging, age-appropriate activities, children develop essential computing vocabulary and concepts that enable them to articulate their understanding and make connections between technology and real-world applications. By the time they leave our school, children are adept at applying their knowledge to analyse digital information, recognise patterns, and formulate informed opinions. They engage critically with diverse digital tools and platforms, learning to differentiate between credible sources and misinformation, which prepares them for thoughtful discussions and collaborative projects. Through enquiry-based learning and hands-on experiences, children not only retain information but also cultivate a genuine curiosity about technology that extends beyond the classroom. As a result, children progress from our school well-prepared for the next stage of their education. They possess the skills necessary for further academic study, including research, coding, and digital literacy abilities. Additionally, their solid foundation in computing ensures they are ready to engage thoughtfully with complex topics in secondary education, fostering responsible and informed digital citizenship in their future endeavours.