

Computing at Abbey Road

Technology enables us to code, create and connect

The Four Elements of Computing

Computer Science	Information Technology	Digital literacy	E-safety
Knowledge and Understanding			
Substantive Knowledge (The facts, information and vocabulary that are needed to understand Computing)		Disciplinary Knowledge (The procedural skills that are needed to use technology effectively)	
<p>Children show understanding of computational thinking and coding concepts when they get to tinker with programming software and robotics.</p> <p>Pupils have time to apply what they have learned in open exploration with block-based code and/or robotics play.</p>	<p>Children use technology purposefully and effectively to create, organize, store, manipulate and retrieve digital content. Children use a variety of software on a range of digital devices to design and create programs, systems and content to achieve a goal.</p> <p>Children learn to analyse and evaluate data and information.</p>	<p>Children use technology safely and responsibly. Showing an understanding of the uses of information technologies outside of school. They evaluate digital content and understand the opportunities that digital literacy offers for communication and collaboration.</p>	<p>Children show understanding of online safety which is taught during class assemblies each half term but also through other subject areas, such as PSHE and RSE. Whole school online safety assemblies are planned by the Computing Leader when appropriate.</p>
The Skills Our Pupils Will Learn			
Computer Science	Information Technology	Digital literacy	E-safety
<ul style="list-style-type: none"> Developing computational thinking skills: decomposition, abstraction, pattern spotting, algorithm design, debugging and evaluating. Designing algorithms and building code Using and creating computer models Understanding computer networks Understanding what databases are and why they are useful 	<ul style="list-style-type: none"> Word processing Using e-mail Planning and creating animations Creating and using spreadsheets Creating 3D graphic models Understanding cryptography Digital drawing 	<ul style="list-style-type: none"> Understanding the Internet and the World Wide Web Searching online Blogging Podcasting Combining media to present information Creating web content using HTML/CSS 	<ul style="list-style-type: none"> Understanding that there are benefits and risks to using the internet Understanding what personal information is Understanding how to speak to others online Understanding the importance of permission when it comes to sharing and using information/pictures Understanding what to do when something goes wrong Identifying adults who can help Understanding how to act safely and responsibly