

Computing

At WNA, we understand that technology is always changing and that we need to equip children with the skills to not only use current computer programmes, but to develop key understandings of computational thinking and problem solving that will enable them to adapt to the ever-changing technologies of the future. This computational thinking will be explored both using computers and without, so that children can deepen their systematic thinking in both artificial and natural contexts – and be able to identify technologies in wider contexts. Children will begin to be able to identify the best current computer programme or platform for a given purpose, and know how to use it effectively and imaginatively. Through a gradual and controlled introduction to online platforms and the world of the internet, they will begin to understand their own personal responsibilities online, whilst deepening their awareness of how to safely navigate the internet in all of its forms. This will be also be underpinned by our promotion of a healthy lifestyle through the PSHE curriculum and wider school life. As children become digitally literate, they will begin to understand that computing is a creative discipline that enables self-expression and they will be given a core understanding of the languages of coding and computers. Through this, they will be empowered to explore the subject imaginatively, playfully and meaningfully.

EYFS	<p>Basic skills introduction</p> <p>Children will begin to learn basic skills such as what technology is and what it can do for us – focusing on computers, iPads and the interactive white board. They will learn to use the iPad to take photographs. They will learn to look for simple information online via the internet.</p>	<p>Online safety</p> <p>Children will learn that information shared on the internet can be viewed by anyone – which has positives and negatives.</p>	<p>Simple programming</p> <p>Children will learn how to program the beebots.</p>
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Year 1	<p>Online Safety</p> <p>Children will begin learning how to use purple mash independently and safely. They will learn how to login and the importance of logging out. They will explore the tools and games that can be used on purple mash and how to save their work.</p>	<p>Lego builders and maze explorers</p> <p>Children will be introduced to coding through looking at the importance of using complete instructions that are in order. Children will follow and create their own instructions. They will then learn to debug, change and extend algorithms</p>	<p>Coding</p> <p>Children will begin using code to plan and make a computer program. They will look at instructions and predict what will happen when they are followed. They will also learn what events, backgrounds and objects are.</p>
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<p>Year 2</p>	<p>Coding</p> <p>Children will follow on from their learning in Year 1 and create a computer program using an algorithm. They will learn that algorithms follow a sequence and can be timed. Children will learn what different events do in code and the functions of different buttons in a program.</p>	<p>Online safety and effective searching</p> <p>Through purple mash children will communicate with each other and begin using email. They will learn how to communicate politely online and why it is important to keep personal information secure. Children will also begin learning to search effectively and safely on the internet.</p>	<p>Presenting ideas</p> <p>Children will learn how to present stories in different ways and make quizzes, fact files and presentations.</p>
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<p>Year 3</p>	<p>Coding</p> <p>Children will be introduced to flowcharts and how they are used in computer programming. They will learn how to use different types of timers and the repeat command. They will apply their learning to create an interactive scene.</p>	<p>Online safety and spreadsheets</p> <p>Children will learn how to create a secure password and how to keep it safe. They will explore how the internet can be used to communicate safely and how blogs work. They will learn how to consider if a website is telling the truth and what age restriction symbols mean.</p> <p>Children will use 2calculate to collect data and produce graphs.</p>	<p>Email</p> <p>Through Purple Mash children will learn how to use email safely and add attachments.</p>
<p>Year 4</p>	<p>Coding</p> <p>Through Purple Mash children will develop their knowledge of coding including using if/else statements, number variables and co-ordinates. They will apply their learning to create a playable game.</p>	<p>Online safety</p> <p>Children will explore identity theft, digital footprints and plagiarism. They will learn about appropriate behaviour online and the importance of balancing screen and game time with other activities.</p>	<p>Effective searching</p> <p>Children will learn to search effectively to find out information, locate information on the results page and assess the reliability of an information source.</p>

<p>Year 5</p>	<p>Coding</p> <p>Through Purple Mash children will create a simulation and a playable game. They will learn how to use friction, function and variables in coding and create strings.</p>	<p>Online safety</p> <p>Children will develop a greater understanding of the impact of sharing digital content. They will look at the advantages and disadvantages of altering images and the impact of sharing inappropriate images, videos and text online. They will also explore how to assess the reliability of sources and consider the impact of incorrect information.</p>	<p>Spreadsheets</p> <p>Children will learn how to use spreadsheets effectively in real life situations.</p>
<p>Year 6</p>	<p>Coding</p> <p>Children will develop their understanding of coding through learning about the launch command, functions and flowcharts. They will use 2Code to create a text adventure game.</p>	<p>Online safety and networks</p> <p>Children will consider the benefits and the risks of mobile devices broadcasting locations. They will have a clear understanding of appropriate online behaviour and how information online can persist.</p> <p>Children will learn what the internet consists of and what a LAN and a Wan are. They will find out when the internet was invented and consider what the future might hold.</p>	<p>Blogging</p> <p>Children will learn the purpose of writing a blog and the features of a successful blog. They will plan the theme and content of their own blog and learn how to contribute to existing blogs.</p>