# Curriculum overview for parents and carers

## Computing

Summary of key Computing learning for Reception to Year 5/6.

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| | EYFS: Reception | | |
|---|---|---|---|
| Autumn 1 | **Computing through continuous provision**<br><br>Exploring different forms of technology in the children's daily classroom play. | Autumn 2 | **Computing systems and networks**<br><br>**Using a computer**<br>Discovering the main parts of a computer and how to use the keyboard and mouse. Learning how to log in and out. |
| Spring 1 | **Programming 1**<br><br>**All about instructions**<br>Receiving and giving instructions and understanding the importance of precise instructions. | Spring 2 | **Computing systems and networks**<br><br>**Exploring hardware**<br>Tinkering and exploring with different computer hardware and learning to operate a camera. |
| Summer 1 | **Programming 2**<br><br>**Programming Bee-Bots**<br>Learning about directions, experimenting with programming a Bee-Bot/Blue-Bot and tinkering with hardware. | Summer 2 | **Data handling**<br><br>**Introduction to data**<br>Sorting and categorising data and introducing branching databases and pictograms. |

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| | Year 1/2 Cycle B | | |
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| Autumn 1 | **Programming 1**<br><br>**Programming Bee-Bots**<br>Introducing programming through the use of a robot (Bee-Bot) and exploring its functions. | Autumn 2 | **Creating media**<br><br>**Digital imagery**<br>Taking and editing photos, searching for and adding images to a project. |
| Spring 1 | **Data handling**<br><br>**Introduction to data**<br>Learning what data is and the different ways it can be represented. Learning why data is useful and the ways it can be gathered and recorded. | Spring 2 | **Programming 2**<br><br>**ScratchJr**<br>Exploring what 'blocks' do' by carrying out an informative cycle of predict > test > review. Programming a familiar story and make a musical instrument. |
| Summer 1 | **Creating media**<br><br>**Stop Motion**<br>Learning how to create simple animations from storyboarding creative ideas. | Summer 2 | **Data handling**<br><br>**International Space Station**<br>Learning how data is collected, used and displayed and the scientific learning of the conditions needed for plants and humans, to survive. |
| Online safety | **Online safety**<br><br>**Online safety Y2**<br>Learning: how to keep information safe and private online; who we should ask before sharing things online and how to give, or deny permission online. | | |

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## Year 3/4 Cycle B

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| **Autumn 1** | **Computing systems and networks**<br>**Networks**<br>Learning what a network is and how devices communicate and share information. | **Autumn 2** | **Data handling**<br>**Comparison cards databases**<br>Learning about records, fields and data and sorting and filtering data. |
| **Spring 1** | **Computing systems and networks**<br>**Journey inside a computer**<br>Assuming the role of computer parts and creating paper versions of computers to consolidate understanding of how a computer works. | **Spring 2** | **Computing systems and networks**<br>**Collaborative learning**<br>Learning how to work collaboratively and exploring a range of collaborative tools. |
| **Summer 1** | **Data handling**<br>**Investigating weather**<br>Researching and storing data on spreadsheets and designing a weather station. | **Summer 2** | **Computing systems and networks**<br>**HTML**<br>Learning about the markup language behind a webpage; becoming familiar with HTML tags, changing HTML and CSS code to alter images and 'remixing' a live website. |
| **Online safety** | **Online safety**<br>**Online safety Y4**<br>Searching for information and making a judgement about the probable accuracy; recognising adverts and pop-ups; understanding that technology can be distracting. | | |

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| | Year 5/6 Cycle B | | |
|---|---|---|---|
| Autumn 1 | **Programming 1**<br>**Programming music**<br>Building-on programming and music skills to create different sounds, beats and melodies which are put to the test with a Battle of the Bands performance! | Autumn 2 | **Creating media**<br>**Stop motion animation**<br>Creating animations, storyboard ideas and decomposing a story into small parts before putting together to create the illusion of a moving image. |
| Spring 1 | **Computing systems and networks**<br>**Search engines**<br>Learning about how pagerank works and how to identify inaccurate information. | Spring 2 | **Data handling**<br>**Big data 1**<br>Identifying how barcodes and QR codes work. Learning how infrared waves are used for the transmission of data while recognising the uses of RFID. |
| Summer 1 | **Data handling**<br>**Big data 2**<br>Further developing understanding of how networks and the Internet are able to share information. Learning how big data can be used to design smart buildings. | Summer 2 | **Creating media**<br>**Intro to Python**<br>Using the programming language 'Python' to create designs and art. Learning how to create loops and nested loops to make their code more efficient. |
| Online safety | **Online safety**<br>**Online safety Y6**<br>Learning to deal with issues online; about the impact and consequences of sharing information online; how to develop a positive online reputation; combating and dealing with online bullying and protective passwords. | | |

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