



## Navenby Church of England Primary School: ICT & Computing Curriculum Coverage



### Intent

At Navenby Church of England Primary School, we will provide our pupils with the life skills to enable them to use technology in a socially responsible and safe way. By utilising modern technology and *inspirational teaching*, we want our pupils to be *inspired learners* who will have *aspirational prospects* to operate in a 21<sup>st</sup> century workplace in this digital age. We want children to become autonomous, confident users of technology. We will use technology to make our curriculum accessible for all and help the children to identify as digital citizens who are part of a global, online community.

### Implementation

Computing will be taught in discrete lessons, though there will be many opportunities for cross-curricular links. Our teaching will focus on three main concepts: e-safety, digital literacy and coding. These will be covered in every year group from the EYFS to Year 6, with a spaced learning approach to ensure key ideas are revisited.

### Impact

Our approach to the ICT curriculum will result in an engaging, balanced and high-quality computing education. Evidence of the children's work will be collated on the school's Student Share drive and will be reviewed by the subject leader. The knowledge gained in our computing lessons will equip pupils with skills which will benefit them in secondary school, further education and future workplaces. Computing at Navenby Church of England Primary School gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives. By the end of the following phases of their education at Navenby, the teachers, leaders and governors of the school expect our children to have the computing knowledge to:

| Curriculum Concepts | E-Safety  | Digital Literacy  | Coding   |
|---------------------|---|---|--|
| EYFS                | <ul style="list-style-type: none"> <li>Know that information such as your name, where you live and what school you go to should be kept private</li> <li>Handle a piece of ICT equipment such as a laptop, desktop computer or tablet safely</li> </ul> | <ul style="list-style-type: none"> <li>Interact with a range of technology, including cameras, video, microscopes and tablets</li> <li>Explore ways of making and listening to sounds using simple programs and devices</li> <li>Navigate a simple website, following hyperlinks</li> <li>Collect information by taking photographs or videos</li> <li>With assistance, play back videos and become familiar with the control buttons of 'play', 'pause' and 'stop'</li> <li>Use technology to sort objects, such as those of a certain colour or shape</li> <li>With assistance, produce simple pictograms</li> <li>Use a shortcut on a computer to access a program or website</li> <li>Understand that digital technology can make processes simpler and is used in the wider world</li> </ul> | <ul style="list-style-type: none"> <li>Explore simple control devices which use ICT, such as a cash till in a role play scenario</li> <li>Explore the commands needed to control a range of electronic toys</li> <li>Use a range of electronic toys such as Beebots</li> </ul> |

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| <p><b>Year 1</b></p> | <ul style="list-style-type: none"> <li>• Handle a piece of ICT equipment such a laptop, desktop computer or tablet safely</li> <li>• Identify how computers make our lives more simple in a modern world</li> <li>• Understand the idea of a digital footprint</li> <li>• Know how to keep their information private</li> </ul>  | <ul style="list-style-type: none"> <li>• Practice logging on and off a computer and how passwords can protect our private information</li> <li>• Develop basic typing, formatting and mouse skills</li> <li>• Know how to search the Internet safely and find appropriate pictures</li> <li>• Save images from the internet into a folder they have created and named</li> <li>• Use a computer program to create an illustration</li> <li>• Create a simple eBook by combining text and images</li> </ul>  | <ul style="list-style-type: none"> <li>• Understand that computers follow precise commands called 'code'</li> <li>• Use a Beebot to plan simple commands for a piece of technology to follow</li> <li>• Use my knowledge of code to predict the behaviour of a simple program</li> <li>• Be able to create, record, test and debug simple algorithms with Beebots</li> <li>• Create a sprite which can move and use speech using Scratch Coding</li> </ul> |
| <p><b>Year 2</b></p> | <ul style="list-style-type: none"> <li>• Understand what personal information is and how to identify trusted adults who can help</li> <li>• Understand what personal information should not be shared and that I have the right to say 'No'</li> <li>• Understand what behaviour others value both online and off</li> <li>• Understanding how a digital data trail can be followed</li> <li>• Learn about cyberbullying and how to tackle it</li> </ul> | <ul style="list-style-type: none"> <li>• Use search engines effectively, including how to use appropriate keywords</li> <li>• Learn how some websites are more reliable sources of information than others</li> <li>• Carry out simple note-taking from online sources</li> <li>• Open, compose and reply to emails</li> <li>• Use computing programs to collect data and create simple charts such as pictograms</li> <li>• Take, edit and enhance photographs using digital software, saving these in an appropriate folder</li> <li>• Understand how the Internet works and how it is useful in a modern world</li> </ul>  | <p>Use Scratch coding to:</p> <ul style="list-style-type: none"> <li>• Create a character</li> <li>• Move and alter the size of their character</li> <li>• Make characters appear and disappear</li> <li>• Create a loop of code for a character to follow</li> <li>• Create a simple maze game for a character</li> </ul>   |
| <p><b>Year 3</b></p> | <ul style="list-style-type: none"> <li>• Understand what type of information is appropriate to share online</li> <li>• Learn how to protect your privacy online</li> <li>• Understand how to create a strong password</li> <li>• Learn about 'netiquette' and how to treat others online</li> </ul>  | <ul style="list-style-type: none"> <li>• Understand that there are lots of different ways people can belong to a community online</li> <li>• Learn about how the Internet can be used for selling goods or services</li> <li>• Learn how to write and send a well-structured email</li> <li>• Build on the idea that some websites are more reliable sources of information than others</li> <li>• Search the Internet, take effective notes and use Google Docs / Microsoft Word to create a document including downloaded images</li> <li>• Understand how to create a survey and collect data</li> <li>• Represent a data set by creating charts and interpreting results</li> <li>• Understand the ethical and legal aspects of online data collection</li> </ul> | <p>Use Scratch coding to:</p> <ul style="list-style-type: none"> <li>• Create a sprite</li> <li>• Use repetition in a series of code</li> <li>• Debug a set of code and correct it</li> <li>• Add and edit backgrounds</li> <li>• Add sound to an animation</li> <li>• Create instruments and sounds</li> <li>• Create, edit and review an animation or game</li> </ul>  |

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| <p><b>Year 4</b></p> | <ul style="list-style-type: none"> <li>• Understand the idea of phishing scams and bots as a way to steal people's data and how to protect against this</li> <li>• Learn about the 'Rings of Responsibility' and recap digital footprints</li> <li>• Recap the key aspects of cyberbullying and how to be an upstander, not a bystander</li> <li>• Learn about where to get help online for cyberbullying</li> </ul>  | <ul style="list-style-type: none"> <li>• Research and record concise information from online searching, including advanced searches</li> <li>• Assess the credibility of different online sources</li> <li>• Write a simple computer program which creates a pop-up window</li> <li>• Use iMovie to create a video by writing a storyboard, creating props and learning the basic toolkit of iMovie</li> <li>• Carry out research and create a database and charts to represent and analyse your findings</li> <li>• Use PowerPoint / Word to present work, including downloaded images and skills such as animation and slide transitions</li> </ul> | <p>Use Scratch coding to:</p> <ul style="list-style-type: none"> <li>• Create a 'chatbot'</li> <li>• Create and use variables</li> <li>• Debug a set of code and correct it</li> <li>• Trace and understand code</li> <li>• Use repetition and selection in code</li> <li>• Introduce a challenge into a simple game</li> </ul>  |
| <p><b>Year 5</b></p> | <ul style="list-style-type: none"> <li>• Recap how to create strong passwords and customise privacy settings</li> <li>• Understand how encryption works online and become familiar with systems such as semaphore and Morse code</li> <li>• Learn about age restrictions and how to stay safe on social media</li> <li>• Learn how to cite sources from the Internet and why this important in your own work</li> <li>• Learn about digital image enhancement and the benefits of this, as well as how this can distort perceptions of beauty and health</li> <li>• Recap where to get help online for cyberbullying</li> </ul> | <ul style="list-style-type: none"> <li>• Create and collaborate on documents using Google Drive</li> <li>• Create and edit a Google Sheet</li> <li>• Use Google Drawings to create an image</li> <li>• Use Google Docs to create an advert</li> <li>• Use Google Sites to create a basic website</li> <li>• Use iMovie to create a video from your own storyboard and enhance your understanding of the iMovie toolkit</li> <li>• Use email effectively including subject lines and multiple recipients</li> <li>• Utilise software such as Word, PowerPoint and Publisher to present topic-based work effectively</li> </ul>                         | <p>Use Scratch coding to:</p> <ul style="list-style-type: none"> <li>• Control a sprite using input</li> <li>• Use collision detection code</li> <li>• Add a timer to a game</li> <li>• Utilise 2-player functionality</li> <li>• Create a controller</li> <li>• Increase the difficulty of your game</li> <li>• Add a high score system and game menu interface</li> </ul>  |
| <p><b>Year 6</b></p> | <ul style="list-style-type: none"> <li>• Learn how to respond to cyberbullying and recap the idea of being an upstander, not a bystander</li> <li>• Learn about being a digital citizen and safe practises for communicating via social media</li> <li>• Understand targeted advertising and gender stereotyping online and how to spot this</li> <li>• Recap phishing scams and catfishing</li> <li>• Recap where to get help online for cyberbullying</li> </ul>  | <ul style="list-style-type: none"> <li>• To test the credibility of online sources</li> <li>• To write a research-based article using Google Docs</li> <li>• Pitch a proposal for an app and understand how apps work and are marketed</li> <li>• Analyse and interpret data collected from online survey software</li> <li>• Further enhance video creating and editing skills</li> <li>• Present work using a variety of software programs</li> </ul>   | <p>Use ScratchMaths to:</p> <ul style="list-style-type: none"> <li>• Explore place value</li> <li>• Create sequences</li> <li>• Explore converting units</li> </ul> <ul style="list-style-type: none"> <li>• Use Scratch coding to create an interactive game with multiple players, levels and a game menu</li> <li>• Introduce Python or HSS coding to apply coding, programming and debugging skills</li> </ul> |