**Computing Long Term Plan**

**Holy Trinity C of E Primary School**

We recognise that our children are citizens of the digital age, and we intend to provide them with the skills and concepts needed to thrive in a future that is increasingly dependent on **computational thinking** and **creativity**.

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| **Safety Online** | **Computer Science** | **Digital Literacy and Information Technology** |
| To use the **internet** in a **safe** and **respectful** way, as well as understanding how and where to seek help and support. | To **write** and **debug** **code** successfully and with confidence; **analysing** **problems** in **computational** **terms**.Computer science covers knowledge of computers and computation, including concepts such as data, system architecture, algorithms and programming. Computer science is seen as the core of computing and underpins the whole of the subject. | To **competently** and **creatively** use **information** **communication** **technology** and recognise the use of technology in the wider world.Information technology provides a context for the use of computers in society. It focuses on how computers are used in different sectors and describes the methods used to create digital artefacts such as presentations, spreadsheets and videos.  |

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|  |  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **EYFS** | ***N.B. Early Years Outcomes are taught throughout the academic year. The topics below are Early Learning Goal outcomes that link to Computing*** |
| **Exploring using media and materials** | **Being imaginative** | **Understanding** | **Technology** |  |  |
| Digital Literacy/ Information Communication Technology | Digital Literacy/ Information Communication Technology | Computer Science | Digital Literacy/ Information Communication Technology |  |  |
| **Y1** | **Eric Barrett – Cleveland Police (Sessions with Y1-Y6)** | **Using the internet safely and responsibly** | **What can I do if I am worried?** | **What is an algorithm? (Bee Bot/Busy Bundle)** | **Writing code and debugging simple programs:** **(Box Island)** | **How to search the internet** | **Using technology creatively** |
| Safety Online | Safety Online | Computer Science | Computer Science | Digital Literacy/Information Communication Technology | Digital Literacy/ Information Communication Technology |
| Using technology safely, responsibly and respectfully, e-safety, personal information | Reporting concerns, acceptable and unacceptable behaviour | Understanding what an algorithm is, creating everyday algorithms, writing code with algorithms | Sequencing instructions to achieve a specific goal, debugging, problem solving | Using iPad keyboard, interacting with technology, researching | Copying and pasting, typing, taking photographs, inserting images into a document, saving images moving text and images on the screen |
| Internet Safety Day (8.2.2022) - Safety Online **External Online Safety opportunity?** |
| **Y2** | **Why should we use passwords?** | **What should I do if I am worried?** | **How do digital systems/computer programs work? (Box Island)** | **What is block based coding? (Kodable)** | **Using the internet purposefully** | **Creating content** |
| Safety Online | Safety Online | Computer Science | Computer Science | Digital Literacy/ Information Communication Technology | Digital Literacy/ Information Communication Technology |
| Purpose of password protection, using technology safely, e-safety, being safe online | Unacceptable and acceptable behaviour, a range of ways to report concerns, being responsible online | Use of algorithms, sequencing events, using block-based code, debugging, problem solving | Block based coding: algorithms, sequencing events, debugging, running programs, problem solving, testing programs | Research a given topic, copy and paste text, take photos (including screenshots) and save images, use of technology beyond school,  | Manipulate text and images, using emoticons to convey meaning, thinking carefully about the layout of content |
| Internet Safety Day (8.2.2022) - Safety Online**External Online Safety opportunity?** |
| **Y3** | **Be SMART** | **Are they who they say they are?** | **Augmented Reality: Coding Club** | **Using ProBots** | **Refining searches on the internet** | **Creating content for a purpose and an audience** |
| Safety Online | Safety Online | Computer Science | Computer Science | Digital Literacy/ Information Communication Technology | Digital Literacy/ Information Communication Technology |
| Link being safe online to SMART rules, passwords, finger touch and face recognition,  | Online personas, unwanted contact, reporting concerns about content and contact | Explaining augmented reality, different perspectives, block-based coding, test, run program | Using different digital devices, algorithms and debugging code, sequencing instructions, coding language (programming arrows on ProBots) | Searching for specific images and information, key words, refining results | Recognise use of technology in the wider world, considering an audience and purpose, manipulating images, videos and text |
| **James and the Giant Peach: Centipedes, Ancient Egypt Historical Enquiry (Spring 1)** | Internet Safety Day 8.2.2022 |
| Digital Literacy/ Information Communication Technology |
| Searching for specific information, key words, refining results |
| **Y4** | **Are they who they say they are?** | **Can you explain online safety?** | **Programming Robots: LightBot** | **Programming Robots: A.L.E.X** | **Collecting and publishing information** | **Publishing content** |
| Safety Online | Safety Online | Computer Science | Computer Science | Digital Literacy/ Information Communication Technology | Digital Literacy/ Information Communication Technology |
| Online personas, unwanted contact, reporting concerns of content and contact, e-safety | Concerns about content and contact, acceptable and unacceptable behaviour, passwords, online personas, SMART, safe and responsible | Algorithms, debugging, computer program design, tests, running programs, logical reasoning, sequencing, sequence loops, test, run program | Algorithms, debugging, computer program design, tests, running programs, logical reasoning, sequencing, sequence loops, logical reasoning statements ***(If A, then B),*** test, run program | Exploring the internet for information, searching specifically, organising information found online, creating effective content e.g. Book Creator  | Creating effective content with sound, images and text, manipulating text, images, formatting text |
| **Who were the Romans?** | Internet Safety Day 8.2.2022 |
| Digital Literacy/ Information Communication Technology |
| Exploring the internet for information, searching for specific information |
| **Y5** | **What technology do I use?** | **Block-Based Coding: Tynker** | **Should I be using social media?** | **Beginning Swift-Coding: Tynker** | **Creating content for an audience and a purpose** | **Social Media: Twitter** |
| Safety Online | Computer Science | Safety Online | Computer Science | Digital Literacy/ Information Communication Technology | Digital Literacy/ Information Communication Technology |
| Screen time, creating content, digital footprints, being a responsible online citizen, being SMART | Algorithms using variable statements, using block-based code, explaining block-based code, use logical reasoning statements ***(If A, then B),*** sequence and repetition, test, run program | Social media age restrictions, safety online, content, contact, acceptable and unacceptable behaviour, screen time, being a responsible online citizen | Algorithms using variable statements, use logical reasoning statements ***(If A, then B),*** sequence and repetition, beginning to use swift code (building a function) within Tynker, variables, sequence loops, test, run program | Create effective content, formatting text, manipulating images, including sound and video, understanding use of technology in wider world, creating a presentation, publishing software | Being a good online citizen, recognising acceptable an unacceptable behaviour online, using media as content |
| **Who were the Suffragettes?** | Internet Safety Day 8.2.2022 |
| Digital Literacy/ Information Communication Technology |
| Exploring the internet for information, searching specifically, organising information found online |
| **Y6** | **What are the dangers of the internet?** | **Swift Playgrounds** | **How can I keep myself safe?** |  | **My Journey** |
| Safety Online | Computer Science | Safety Online | Digital Literacy/ Information Communication Technology |
| Online personas, sharing sensibly, social media restrictions | Variable statements, block-based code, swift coding (building a function), recognising wider use of technology in the world, input and output, coding language, test, run program | Screen time, sharing sensibly, social media restrictions, digital footprint, being a responsible online citizen | Creating a presentation, including a range of content: sounds, images, videos, media |
| **What is the World Wide Web?** | Internet Safety Day 8.2.2022 | **What is the World Wide Web?** |
| Digital Literacy/ Information Communication Technology | Digital Literacy |
| Researching, searching for specific information, filter results | Researching, searching for specific information, filter results |

***Internet Safety Day Tuesday 6th February***