Scheme Overview

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| DL = Digital Literacy | CS = Computer Science | IT = Information Technology |

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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **NURSERY** | DL | | IT | | CS | |
| **Using Technology Safely**  Pupils learn to recognize who we can trust with information and how that links to the online world. | | **Understanding the parts of a computer**  Pupils learn to recognise the different parts of a computer. | | **Using Programming Devices**  Pupils use different types of devices & to give and follow instructions. | |
|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **EARLY YEARS FOUNDATION STAGE** | IT & DL | | IT | | CS | |
| **I Am a Super Surfer**  Pupils will learn to recognize on and offline technology and how to use it safely with the help of trusted adults. | | **Look What I Can Do**  Pupils will learn that information can be used and created using technology. | | **I Am a Computer Scientist**  Pupils will learn cause and effect in computing. *(I press this button – this is the result)* | |
|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **YEAR 1** | IT | DL | CS | CS | IT | IT |
| **Basic Computing Skills**  Pupils will learn how to log in and shut down a computer accurately and begin to understand the importance of a password. | **Using text-based programs to process and format text and Images**  Pupils will learn how to use a word processing program to write and format text. They will add digital images and consider the audience for their work. | **Unplugged Algorithms**  Pupils learn what an unplugged algorithm is and create and apply them to an on-screen program. | **Programming, coding & Robotics**  Pupils explore how to control both physical and virtual robots with a sequence of commands. | **Data collection and representation using Pictograms**  Pupils will explore how to transfer physical data from a tally chart into a digital pictogram. They will compare the difference with creating a physical pictogram. | **Presenting Information**  Pupils will consider a variety of ways to present cross curricular information digitally, and compare the advantages and disadvantages with paper-based content. |
|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **YEAR 2** | IT | CS | CS | DL | IT | IT/DL |
| **What is a** **Computer?**  Pupils will learn how to identify a computer’s different parts and talk about the role computers play in our society. | **Unplugged Algorithms**  Pupils build on their knowledge of what an algorithm is and how we can program computers to use algorithms. | **Programming using Scratch Jr**  Pupils will use the Scratch Jr app to write their own block code for several different projects. These can easily be made cross curricula. | **Storing and Presenting Data**  Pupils to understand what data is, and how we store that data in different ways. Storing data on a computer allows us to quickly sort it and present it as information in graphs and charts. | **Modifying Text and Images**  Pupils will look at software they can use to present their work. They will expand on previous skills such as using a keyboard, formatting text and how to use images in their work. | **Presenting Information**  Pupils will explore and learn how to present information to an audience using technology. |
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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **YEAR 3** | IT | CS | CS | IT | CS | IT/DL |
| **Composing Emails**  Pupils will explore the different advanced features of Microsoft Word. They will also use these skills to compose an email. | **Introduction to Scratch**  Pupils will learn how to program sprites using a range of blocks to add animation, sound and other effects | **Prediction and Debugging**  Pupils will learn how to use prediction when coding to test and debug written programs. | **Altering Media**  Pupils to look at the skills behind taking a good photograph and how these photos can be edited in various ways. | **Inside a computer**  Pupils will identify the different parts of a computer and explore how computers have evolved over the last 100 years. | **Publishing Online Content**  Pupils will be introduced to graphic design, marketing, and will develop their publishing skills. |
|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **YEAR 4** | IT | CS | CS | IT | DL | IT |
| **Branching Databases**  Pupils learn about the concept of a branching database and create their own using presentation software. | **Repetition and Forever Loops**  Pupils learn to use repetition and loops when coding. | **Designing a Game**  Pupils use their knowledge of Scratch to create a Formula One style game. | **Making a Special Effects movie**  Pupils create their own videos and apply special effects to them. | **Smarter Searching and Online Safety**  Pupils to gain awareness of the best ways to use a search engine and to continue to develop awareness of online dangers. | **Pixel Art**  Pupils create a piece of pixel artwork using a grid format. |
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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **YEAR 5** | IT | CS | CS | IT | CS | IT |
| **Create & Search Database**  Pupils will use Excel to create and search a database. | **Using Variables**  Pupils identify different types of variables. what conditionals are and understand how variables are used in computer programming. | **Coding Using Micro:Bits**  Pupils to program Micro:Bit to make a variety of practical and usable devices. | **Stop Motion Animation**  Pupils will learn about all aspects of stop frame animation. They will storyboard their own story before using a software package to create their own stop frame animation. | **The Internet & The World Wide Web**  In this unit the children will learn the difference between the WWW and the internet. They will also understand what is meant by IP address. | **3D Modelling**  Children will learn to design models using online CAD software. |
|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **YEAR 6** | IT | CS | CS | IT | IT | IT & DL |
| **Creating Formula in Excel**  Pupils will learn how to organise data and make calculations using the application Microsoft Excel. | **Edublocks- Introduction to Python**  Pupils will learn how block-based programming compares to written code. Pupils will be introduced to Python as a text-based method of programming. | **Programming a Game**  Using the application Scratch, pupils will create an interactive, playable game using conditionals, variables, and operators. | **Creating a Podcasting**  Pupils will produce a podcast based on a piece of writing from another curriculum area or aspect of school life. | **HTML**  Pupils will learn how to design a multi-page informational website, considering the layout, user experience and key features including home page, links and images. | **Social Media & Being Safe Online**  Pupils will learn about the purpose of social media and different aspects of social media and how to use it safely. |