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 YEARSFOUNDATIONSTAGE** | 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. |