Marston Moreteyne School *Computing* Curriculum- Based on the eight "Big Ideas"

Processes	Creativity	Investigation	Humankind	Nature	Place	Materials	Comparison
The "Aspects" below are progressive and start from Nursery through to Year Four. They allow children to encounter and revisit their learning through a variety of subject lenses. Over time, these encounters help children to build conceptual frameworks that enable a better understanding of increasingly complex ideas							
Physical Interactions Children understand that algorithms are a sequence of steps, instructions or rules that are used to perform a specific task. They know that mistakes are called bugs and when these are solved this is called debugging. This leads to an understanding that all instructions need to be programmed by the user.	**Creation** Software are programs that are used by a computer, such as word processing software, presentation software or image editing software. I children are given access to software to complete given tasks using text, images, audio and video clips. This then develops into images, animation, audio and video clips can be combined using tools within a piece of software or by using a range of software. Children then begin to manipulate a range of text, images, sound or video clips and animation by changing their style, size, colour, effect, shape, location or format.	**Data and Computational Thinking** Children learn that algorithms to achieve the end goal, instructions must be accurate and followed sequentially. Children are shown how to set up steps of an algorithm and recognising that the computer will follow instructions precisely. Identify and use repetitions or loops in a program sequence, predicting outcomes and noticing and correcting any mistakes. **Networks** When work is saved electronically, it can be stored on a hard drive, a shared drive called a server or online so that it can be opened on the same device or another device at a later time. Computers are linked and are able to share resources and digital content can be stored, organised and retrieved, such as through a network, the internet and Bluetooth.	**Communication** Digital technology is used in all parts of everyday life ad can be used to connect with other both locally and globally. This leads into understanding that e-mail, social media platforms or blogs, can be used by individuals to communicate and connect with a developing understanding of the advantages and disadvantages. **Staying Safe** Children know that private information includes names, addresses, dates of birth or schools and this information should not be shared online. Stay safe online by choosing websites that are appropriate to visit and know where to go for help and support when they have concerns about content or contact on the internet and other online technologies. **Digital Citizenship** Children learn that when work is saved electronically, it needs to have a name that identifies it and is easily remembered. Recognise that information put online leaves a digital footprint and that work they have created belongs to them. Identify appropriate behaviour when contributing to collaborative online projects for learning and impact on others.	**Real World** Children have an understanding that data can be collected manually or using digital technology. Children will observe how collected data can be represented electronically and use data handling skills to represent data digitally. This leads into using input devices to receive information about the outside world, such as light level, temperature or sound level, and sends it to a computer. This information can be tracked over time using a program or app. Log light level, temperature or sound level using a program or app, over a period of time.	**Digital World** Software available online, such as email, social media platforms or blogs, can be made by individuals to communicate their ideas. The internet is used to connect computers or devices around the world. The internet is an important part of life for many people. Different software, websites and apps can be used to collaborate and communicate online. **Real World** Technology is used in many ways to do different jobs. Recognise why digital technology is used in the classroom, home and community. Use digital technology in different ways in the classroom, home and community.	**Hardware** Children use a range of computing hardware for different purposes. Using hardware, such as cameras, scanners and data loggers, can be used to collect data. Use familiar computer hardware to successfully complete a task. Interacting regularly, they can recognise common features and become confident in working with new or unfamiliar hardware. **Software** Children know that Software is the programs that are used by a computer, such as word processing software, presentation software or image editing software. They develop understanding that each type of software, can be used for different purposes with increasing complexity.	**Digital Searching** Children know that the user needs to know the file name, file type and folder name or keywords and search terms to find the correct information. They can recognise and demonstrate that some information can be found online and some offline. Children understand that the World Wide Web is a collection of web pages that are run via the internet. The information requested can be displayed as text, images or videos. This leads to an understanding that pop-ups or adverts are a form of online advertising that companies use to encourage users to buy something or go to another website. Children know that different pop ups can exist and show an awareness of dangers.

For I know the plans I have for you," declares the LORD, "plans to prosper you and not to harm you, plans to give you hope and a future. Jeremiah 29:11