Year 1 – 6   Curriculum Mapping

Computing

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1 and 2	**E-safety** Children will learn how to identify real and fake images that are regularly posted online mainly through social media sites. Children will also be learning about how to identify how to keep safe online through positive and negative scenarios. **Beebots-Giving Instructions** Children to begin to create algorithms. Children need to confidently use Beebots and be able to programme them to complete given tasks. Children will begin to use new language such as algorithm and debugging during this unit.	**E-safety** Children will be learning how to stay safe on the internet though emojis. Children will assign emojis (happy face/sad face) to given scenarios. **Using the Internet** Children will learn to use the internet safely and with a purpose. Children are shown how to search the Internet using one word; how to make sense of the returned results; how to use "for kids" to return more suitable results; how to follow links and return to the search results. Children are encouraged to use a range of search engines, including Google, Bing and Yahoo, and some more child-friendly engines like Kidrex.	**E-safety** Through discussion the children will learn how to stay safe online. The children will be given specific questions to discuss individually and as a group. The children will then create an eSafety poster. **Scratch - About Me** Scratch is a programming language where children can program interactive media such as stories, games, and animation. As children create with Scratch, they learn to think creatively, work collaboratively, and reason systematically. Children to use Scratch to create an animation describing them. Children to create their own algorithms/sprites and backgrounds. This unit will help the children become more confident in using Scratch. Children to continue to use language such as algorithms/debugging/sprite.	**E-safety** Through discussion the children will learn how to stay safe online. The children will be given specific questions to discuss individually and as a group. The children will then create a caption with a speech bubble to show what they have learnt. **Scratch - Maze Game** Scratch is a programming language where children can program interactive media such as stories, games, and animation. As children create with Scratch, they learn to think creatively, work collaboratively, and reason systematically. Children to use Scratch to create a simple maze game. Children will look at modern and retro games in order to create a fun new game. This unit will develop their knowledge of Scratch and deepen their understanding. Children to continue to use language such as algorithms/debugging/sprite etc.	**E-Safety** Children will learn what makes a good and bad password and create their own ones to use online. Children will also learn about the impact of putting images of themselves online and how they could potentially stay there forever. **Scratch - Sounds** The children will be using a variable to increase programming possibilities; decompose a problem into smaller parts to design an algorithm to use to write a programme and use logical reasoning to detect and debug mistakes in a program. They will trouble shoot mistakes in data, suggest how it could be checked and select, use and combine the appropriate technology to create different effects.	**E-Safety** Through discussion the children will learn how to stay safe online. The children will be given specific questions to discuss individually and as a group. The children will then create an eSafety poster. **Scratch - Debugging/10 Block Challenge** Scratch is a programming language where children can program interactive media such as stories, games, and animation. As children create with Scratch, they learn to think creatively, work collaboratively, and reason systematically. The children will be extremely confident using Scratch and they will now need to complete a series of debugging activities. This will allow them to identify problems within their own algorithms and problem solve.

Spring 1	**Computer Skills** This unit will teach children the basic computer skills that they will need in order to be able to use a desktop or laptop computer. Children will learn how to use a computer mouse or a track pad and how to switch on and shut down a computer. They will apply their mouse or track pad skills by launching applications, manipulating windows and opening and saving files and folders. The children will then practise their clicking skills and learn how to drag objects, either using a mouse or track pad.	**Word Processing** Children in this unit of work should be able to log on, find word and create and save a document. Children should be prepared to explore the buttons and menus to achieve the task, without resorting to step-by-step instructions.	**Internet Research** This unit focuses on how to effectively search using key words and how to safely and responsibly communicate online. The lessons focused on Internet research will demonstrate the importance of word order when searching. They will also start to examine the results returned and how to distinguish between a reliable and unreliable website or webpage. Children will learn to save webpages in a browser, as well as in a file or folder. They will also understand how this can be shared with others.	**Scratch - Toy Design** Children to investigate what input and output means. They then apply it to toys. Children will then have to design a toy with an input and an output. Once a toy has been designed children will then create their design on Scratch.	**Kodu - Becoming a game designer** Children will use a program called KODU to create a game. Kodu lets pupils create games on the PC and Xbox via a simple visual programming language. Kodu can be used to teach creativity, problem solving, storytelling, as well as programming.	**Spreadsheets** Children are given an understanding of spreadsheets and how they can be used. In the first five lessons, a different spreadsheet template is provided in which children learn skills in formatting and entering specific formulas. They will use investigative skills to solve specific problems within a spreadsheet and design their own.
Spring 2	**Word Processing** Children in this unit of work should be able to log on, find word and create and save a document. This unit has a strong focus on independence and children should be prepared to explore the buttons and menus to achieve the task, without resorting to step-by-step instructions.	**Espresso Coding** Children to work through very basics of Espresso Coding to gain familiarisation and understanding of the software.	**Scratch - eCards** Children combine interesting images and sounds to create an interactive holiday eCard animation using Scratch program that pupils can send to someone they care about.	**Scratch - Find and Share** Ultimately children will work towards creating a basic pong game. They will build up to this looking at small algorithms and analysing what they do within the whole game.	**Webpage Design** This unit combines the further development of children's skills for searching the Internet with the introduction of creating and editing a webpage using Google sites. Children will learn how use to some of the other advanced search features in Google and how to create a webpage. Children are encouraged to consider related e-safety issues such as use of logins and passwords, and the use of their own images and photos and those of others.	**Word Processing** Children will be creating a poster on a current year 6 topic. The children will be required to use many of the features on the menu bar learnt in previous years plus new ones learnt in this unit.
Summer 1	**Paint Programme - Creating Images** Pupils are introduced to a variety of tools within the J2E JiT5 and Pixlr cloud based software to help them produce images and add text.	**Espresso Coding** Designing a Game Children to use what they have learnt in Espresso Coding to design a game. Initially teacher will guide children to what game they need to create. Final piece will be a game children have created independently.	**Word Processing** The children in this unit will produce an information sheet based on a year 3 topic. Children will use copy and paste techniques to bring photos to their Word document along with using many of the features from the menu bar.	**Creating a Website** This unit is to design and create a web page. Before children start designing their own web page you are going to evaluate existing web pages. Children will think about the layout, content and audience for the website. Does it use photos? Different styles and font?	**Word Processing** Children will be creating a presentation on Microsoft PowerPoint. The presentation will be about emerging technologies. The children will have to include certain features as the unit develops.	**Kodu** Children will use a programme called KODU to create a game. Kodu lets pupils create games on the PC and Xbox via a simple visual programming language. Kodu can be used to teach creativity, problem solving, storytelling, as well as programming.
Summer 2	**Creating an eBook** Pupils will create an audio e-Book and are introduced to Microsoft PowerPoint. Pupils will learn how to record and insert sounds onto an electronic publication.	**Scratch** Children will be introduced to Scratch, which is a programming language enabling children to program. They will become familiar with the program and carry out tasks and complete a …	**Scratch - 10 Block Challenge** Children will be given 10 scratch blocks to create any algorithm they wish. They can only use the blocks once. This unit gives the children freedom to use their knowledge of scratch to create an interesting algorithm using given blocks.	**Kodu - Become a Game Designer** Children will use a program called KODU to create a game. Kodu lets pupils create games on the PC and Xbox via a simple visual programming language. Kodu can be used to teach creativity, problem solving, storytelling, as well as programming.	**Spreadsheet Planning** Children to understand that basic spreadsheets in three strands. Understanding what a spread sheet does. Knowing how to graph successfully. Knowing how to manipulate numbers using formulas and other techniques	**Scratch** The overall aim of this sequence of lessons is to introduce children to a number of functions in Scratch and learn about how joining them together in different ways can produce a desired effect.