Computing Curriculum Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	ELG: Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.					

Key stage 1 – Computing skills

Pupils should be taught to:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Year 1	**Digital Literacy**		**Computer Science**		**Information Technology**	
	E-Safety An introduction to E-Safety to make them aware of how devices connect to the internet and allow the sharing of information		**Bee Bots** Giving and following instructions and being aware what will happen when a sequence is given		**Laptops/ 2simple** Introduction to basic navigation skills to allow the use of simple programs and word processing skills (touch typing)	
Year 2	**Computer Science**		**Information Technology**			**Digital Literacy**
	Bee Bots/Apps Development of what an algorithm is. Being aware of how to correct (debug) errors within a sequence of instructions (algorithm).		**Laptops / Word** Develop the use of creating, storing and retrieving information presented within Word. Alter the appearance of what I have created		**Ipad / animate it** Make 2d animations using images taken by a camera (Plant Growth Animations)	**E-Safety** Development of the children's awareness of an online presence and how we must stay SMART online.

Key stage 2 – Computing skills

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Year 3	**Information Technology**		**Computer Science**	**Digital Literacy**	
	IPad/Camera/laptop – Presentation Writing and editing a multimedia text presentation for a purpose using text, images & sound from a range of sources which are captured and edited in relation to their topic	**Data Handling – (Maths Link)** Collecting, entering and presenting information using statistical software	**Ipad (Beetbot app/ Daisy the Dinosaur)** Explore using programs with a variety of inputs to create algorithms with a set purpose	**Music – Garage Band** Compose and edit music to accompany an image.	**3D animation – Ipad/2Animate** Use a simple animation program with captured images being aware how to import and edit scenes **ESAFETY** – PSHE LINK
Year 4	**Digital Literacy**		**Computer Science**	**Information Technology**	
	E-Safety Being more aware how you can communicate and share personal information online. Explore emails and video conferencing. Develop and explore safe searching online (SMART)		**Coding 1 – Scratch** **Coding 2 – Kodu** Develop and use coding programs to create a character (sprite) using complex algorithms to make they interact and move	**3D animation – Ipad/2Animate** Being aware of an audience, use an animation program to import and edit images adding enhancements like title and credits to final outcome	
Year 5	**Information Technology**		**Computer Science**	**Digital Literacy**	
	Research - Internet Explore safe searching online whilst questioning the validity of the information found.	**Data Handling – (Maths Link)** Construct, edit and infer information from graphs, databases and spreadsheets.	**Coding – Scratch (Conditional statements)** Using a coding program to create a digital game allowing for a character (sprite) to navigate with the use of conditional statements to interact with the created environment	**E-Safety (Stay Safe Workshops) –** Understand the uses of personal information online by others and that this information can be used in a harmful way (cyber bullying)	
Year 6	**Digital Literacy**		**Information Technology**	**Computer Science**	
	E-Safety Understand the risks and rewards of publishing personal information online (social media) The use of safe passwords to protect themselves. Discuss how data is stored and distributed online (use of networks and webpages) Explore safe searching online whilst questioning the validity of the information found. **Research - internet** Continue the use of safe searching but be aware of how the choice of words can affect the number and range of sites listed.		**Data Handling: Excel (spreadsheets)** Create a spreadsheet to investigate costs and numerical patterns including the creation and editing of formula to change the value of the data stored **IPad/Camera/laptop – Presentation** Writing and editing a multimedia text presentation for a purpose using text, images & sound from a range of sources whilst thinking about the purpose and suitability for a chosen audience. Being able to add enhancements to make it more aesthetically pleasing to view.	**Coding – Scratch (Variables)** Using a coding program to create a digital game allowing for a character (sprite) to navigate with the use of conditional statements but encounter variables to create a desired win or lose outcome.	