Computing

Termly progression

Reception

	Term 1/2	Term 3/4	Term 5/6
Knowledge	- To know a range of technology used at home and within school. - To know the effect of pressing a button/interacting with technology. - To know how to ask for help when I need it. - To know what is and isn't technology.	To know who to talk to if something worries me. To know what is meant by a 'sensible amount of screen time.' To know how to follow simple instructions independently or supported by an adult when using a computer/ iPad.	To know how to use technology to take a picture. To know how to programme a simple 1 step instruction. To know what it means to problem solve (debug).
Skills	To be able to explore digital technology within the classroom.	To be able to use an ipad to interact with a simple app. To be able to interact with a simple programme on a desktop computer using a mouse.	To be able to input a simple 1 step instruction into a floor roamer. To be able to use a digital device to take a photo.
Key Questions	What does it mean to be safe? Who can I tell if something worries me? What is technology? What is problem solving? What happens when I touch the IWB? How much time should I spend in front of a screen? What is a mouse and keyboard?		
Key Vocabulary	**Communication technology** - Equipment used to communicate with, such as a mobile phone or table **Interactive white-board** – A large touch screen connected to a computer. **Parts of a computer** – screen, mouse, keyboard **Internet** - A network of computers linked all over the world. **Input** - Information that goes into the computer.		
Implementation	Interactive white board Hardware – interactive white board Software – phonics play, top marks maths, notebook files, drawing app Evidence of assessment for learning – Teacher judgement, tapestry	iPad /Desktop computers Hardware – iPad and desktop computers Software – Simple city, phonics play, teach monster, numberblocks app Evidence of assessment for learning – Teacher judgement, tapestry	Floor Roamers Hardware – Floor roamers Support for planning - Generation robots Evidence of assessment for learning – Teacher judgement, tapestry

Year 1

	Term 1	Term 3	Term 5
	Digital Literacy	Computer Science	Information Technology
Knowledge	To know how to use technology safely. To know how to keep personal information private. To know how to safely use a website. To know how technology is used safely in school and outside of school.	To know how to create an algorithm. To know how what is to debug a programme.	To know how to create digital content. To know how to store digital content. To know how to retrieve digital content.
Skills	To be able to a record video on a digital device. To be able to play back video recorded on a digital device.	To be able to plan a journey for a programmable toy. To be able to debug a simple programme.	To be able to create, store and retrieve digital content on a digital device.
Key Questions	• How can we keep safe online? • What is personal information? • Who are strangers? • Who do we ask for help? • What is the internet? • What is a website? • How is technology used at home and in school? • What can we use to record a video?	• What is a Bee-Bot? • What is a programme? • What is an algorithm? • What does it mean to debug?	• What is digital content? • How do you save digital content? • What does it mean to save and then retrieve digital content? • How can you create art on a laptop? • How do you combine text and pictures to create digital content?
Key Vocabulary	**Internet** - A network of computers linked all over the world. **Network** - Computers linked within a building or area.	**Algorithm** - A set of instructions given to be completed in order to achieve a task. **Coding** - Putting information and commands into a program, making it possible for to create software, apps and websites. **Debug** - fixing a sequence in a computer programme. (problem solving) **Bee-Bot**	**Data** - Information. **Hardware** - The physical part of a computer, which uses electrical signals to complete the calculations needed to make software run.

Implementation	Internet safety & Code it lessons Hardware – Interactive white board Support for planning - Smartie the penguin Code it – supermarket, library, bank Evidence of learning for assessment – 1 page of floor book for each lesson including photos, posters and pupil voice.	Bee Bots Hardware – Bee Bots Support for planning – planning on shared drive. Code it http://code-it.co.uk/beebot Evidence of learning for assessment – 1 page of floor book for each lesson including pupil voice/videos of practical tasks including pupil voice.	Laptops Hardware – Laptops Support for planning – Teach computing Evidence of learning – 1 page of floor book for each lesson including pupil voice. Saved digital content created by pupils on shared drive.

Year 2

	Term 1	Term 3	Term 5
	Digital Literacy	Computer Science	Information Technology
Knowledge	To know how to use technology respectfully. I know where to go for help if I am concerned. To know how to keep personal information private. To know that the internet can be used to complete simple searches.	To know to program a range of instructions. To know how to debug and amend a set of instructions. To understand that programs require precise instructions. To predict what the outcome of a simple program will be. (logical reasoning) To know that algorithms are used on digital devices.	To know how to organise digital content. To know how to retrieve and manipulate digital content. To know to create digital content. To know how to store and share digital content.
Skills	To be able to navigate the internet to complete simple searches and review results.	To be able to find, debug and fix simple errors in a programme. To be able to write a simple program.	To be able to organise, retrieve, create and store digital content.
Key Questions	• How can we keep safe online? • Who should I talk to if I am concerned/worried about something online? • How do I keep my information private online? • How to I search for something online? • How do I find answers to my questions online?	• How do I load an application on a digital device? • How do I make simple changes on an application? • What is an algorithm? • How do I debug a program? • How can I predict what will happen on a program? • How do I know if my program is successful?	• How do we record data in a tally chart? • How do we enter data on a digital device? • What does sharing content mean? • What is a pictogram? • What is an attribute? • What can a pictogram tell us?
Key Vocabulary	**Data** - Information. **App** (application) - refers to any application software that can be used by a computer, mobile device, or tablet to perform useful/specific tasks. **Search Engine**	**Decomposition** - is the process by which a large, difficult problem can be broken down into a series of smaller, simpler problems, thus making the overall problem easier to solve. **Coding** - Putting information and commands into a program, making it possible for to create software, apps and websites.	**Digital devices** - are any types of computers that you use, including laptops, tablets and smart phones. This also includes hardware which may connect to a computer.

		Algorithm - a precise set of instructions or rules to achieve an outcome or solve a problem. **Bug** - Errors in programs, or anything that stops them from working properly, are known as bugs **Debug** - fixing a sequence in a computer programming. To debug means to fix or get rid of the bugs and solve problems within a program in order to make it work how it is intended. **Digital devices** - are any types of computers that you use, including laptops, tablets and smart phones. This also includes hardware which may connect to a computer. **Logical Reasoning**	
Implementation	Internet safety Hardware – Interactive white board Support for planning - Safe internet search engine https://www.kidzsearch.com/ Evidence of learning for assessment – 1 page of the floor book for each taught lesson, with pupil voice.	Scratch Jr Hardware – iPads Software – Scratch Jr App Support for planning – Planning on the shared drive. - https://www.scratchjr.org/teach/activities Evidence of learning for assessment – 1 page of the floor book for each taught lesson, with pupil voice. Final project either saved onto share point or a video taken and uploaded to share point.	Data creation, manipulation, storage and retrieval. Hardware – Laptops/iPads with Keyboards Software -https://www.j2e.com/jit5#pictogram (create an account and login to save data/print) Support for planning – Teach computing KS1 – Year 2 – pictograms Evidence of learning for assessment – 1 page of the floor books with pupil voice for each taught lesson. Final pictograms printed for display.
Aims	Pupils will know how to use technology respectfully performing simple internet searches. They will know how to keep personal information private and who to talk to when they are concerned.	Pupil will know how to write a simple algorithm, using logical thinking to debug any issues.	Pupils will know how to create a unique pictogram by retrieving and manipulating data. They will know how to save and a load data.

***Highlighted parts of the document indicate where internet safety is taught.**