



Computing Strands



Year	Computer Science	Information Technology	Digital Literacy	E-Safety
3	<p>iProgram 1 A visual introduction to programming language using the context of game development. Children will develop their own animations.</p> <p>iData Children learn how information in databases is organised and interrogated. They use databases and add records using information found online.</p>	<p>Desktop publishing Learning how to use desktop publishing software, such as Word. Exploring how to format and present work.</p> <p>iPodcast Children will explore, develop, and edit audio by podcasting. They will use technology to capture and manipulate sound, amend and modify their work and explore various podcasting features and audio effects.</p>	<p>Getting to know your devices Learning about the devices used to deliver the computing curriculum.</p> <p>iNetwork Introduction to networks. Children explore real-world examples of networks. They learn how digital devices are connected to form networks and how computer networks connect to form the internet.</p> <p>iConnect Children explore the differences between the internet and the world wide web involving surfing, searching and evaluating. They learn how to use search engines safely and effectively.</p>	<p>iSafe See separate E-Safety progression documents.</p>
4	<p>iProgram 2 Helping children to develop their storytelling skills through design and programming, scripting a conversation and scene change.</p> <p>iData Introduction to the concept of data being represented digitally on computers. Children will begin to understand that data is represented using numbers and learn how data is stored and manipulated.</p> <p>iProgram 3 Using visual programming, adding repetition and loop, as well as art to express themselves creativity.</p> <p>iAlgorithm Exploring algorithms as a set of instructions in real life situations.</p>	<p>iAnimate Introduction to designing and creating computer animations. The children will create narratives and combine them with artwork to make their own animated story.</p> <p>Photography Taking digital photos with different settings and editing them with a range of built in tools.</p>	<p>Combining media Investigating how to bring together different media to present information effectively to an audience.</p>	
5	<p>iProgram 4 Using visual programming language using the context of art. This unit also introduces text-based coding language. Children use both of these to investigate angles and negotiate mazes.</p> <p>iCrypto An introduction to cryptography. Children will learn how to communicate securely over distances. They will explore a number of different methods of cryptography and understand the need for secure communication.</p> <p>Programming Using BBC micro:bits to take visual programming skills and apply them to physical hardware.</p>	<p>iDraw An introduction to graphical drawing using digital tools. Children will explore how images are constructed from shapes and use a variety of geometric shapes, lines, colours, effects and layering to create graphic images.</p> <p>Photography Taking digital photos with different settings and editing them with more advanced tools to create different effects.</p>	<p>Power Point Building a graphic and audio rich, hyperlinked Power Point to create a presentation for a specific audience and purpose.</p>	
6	<p>iProgram 5 Children return to the visual coding language of Scratch in the context of games development to design games and explore the concepts of conditionals (true/false), data iteration (repeat of instructions until a condition is met), incremental development (adding a little detail at a time to a design until it is correct) and systematic testing.</p> <p>Programming Returning to BBC micro:bits to further investigate physical computing and how code can apply to real life.</p>	<p>Graphical editing Manipulating images, including adding and removing elements.</p> <p>iModel This unit introduces children to graphical modelling in 3D space. They will explore working with 3D shapes and use Sketch Up to design, build and position models.</p>	<p>iNetwork Children explore how computers connect people to allow them to work together to share information and resources.</p> <p>iData An introduction to spreadsheets. Children find out how information is entered into a spreadsheet and how formulae can be used to calculate totals. They then move on to producing charts and creating their own spreadsheets.</p> <p>iLearn AI Introducing children to machine learning and artificial intelligence. They will explore what makes intelligence artificial, pros & cons and train their own AI models.</p>	