

	EY	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1 Computing Systems and Networks	E-Safety: Using the internet safely. Using the internet – google Earth	Technology around us Children learn about different aspects of technology and different components of a computer. Children learn how to use technology safely and responsibly.	Information Technology around us Children learn about information at school and beyond. Children learn how technology is used in shops, hospitals and libraries.	Connecting Computers Comparing digital and non-digital devices, before introducing them to computer networks that include network infrastructure devices like routers and switches.	The Internet Children will learn to appreciate the internet as a network of networks which need to be kept secure. Learn about who owns content and what they can access, add, and create.	Sharing Information Learn how information is shared between systems and devices. Take part in a collaborative online project.	Communication Using the WWW as a communication tool.
Autumn 2 Creating media	Using technology in role play – phones and emails.	Digital Writing Children learn how to use Microsoft word to: Identify where keys are on the keyboard. Add, remove and make changes to text. Know when to use the computer and when to use pencil.	Making Music Children explore rhythm, patterns and feeling relating to music before using the Chrome music maker to create their own music. They will then improve their melody .	Desktop publishing Children learn to publish work with text and pictures (in either Adobe spark or Microsoft publisher). Children then look at layouts of magazines and newspapers before creating their own.	Photo editing using photo editing software. Children understand how to change digital images, resave them and reuse them. They consider the impact that editing can have and evaluate the effectiveness.	Video editing Using I movie, children plan, film and edit a video adding titles, credits and smooth transitions. They will understand what makes an effective video.	3D modelling Children will plan, develop and produce a 3D model (of a photo frame) using the tinkercad website.
Spring 1 Data & Information	Programming: Research using the internet	Grouping data. Children are introduced to data. They will use labels to put objects into groups. Pupils will demonstrate that they can count a	Pictograms Children will learn the term ‘data’. They will begin to understand what data means and how it can be collected in the	Branching Databases Children will develop their understanding of what a branching database is and how to create one	Data Logging Pupils use the Arduino Pupils will learn how and why data is collected over time. Pupils will collect data as well as access data	Flat File Databases This unit looks at how a flat-file database can be used to organise data in records. Pupils use tools within a database	Spreadsheets This unit introduces the children to spreadsheets. They will organise data into columns and rows to create a

		small number of objects, before and after the objects are grouped. They will sort objects into different groups, based on the properties they choose. Pupils will sort objects into different groups to answer questions about data.	form of a tally chart. They will learn the term 'attribute' and use this to help them organise data. They will present data using pictograms and block diagrams and answer questions about them using the J2E website.	using the J2data website. They will use attributes & use them to sort groups of objects by using yes/no questions. The learners will create physical and on-screen branching databases.	captured over long periods of time. They will look at data points, data sets, and logging intervals. Pupils will spend time using a computer to review and analyse data.	to order and answer questions about data. They create graphs and charts from their data to help solve problems. They use a real-life database to answer a question, and present their work to others.	data set. Children will be taught how to apply formulas that include a range of cells, and apply formulas to multiple cells by duplicating them. Learners will use spreadsheets to plan an event and answer questions.
Spring 2 Programming A	Coding: Introduction to Beebots	Moving Robots Algorithm are introduced to the children to enable them to programme beebots. Children use forwards, backwards, left and right to direct the robots.	Robot Algorithms Using the Beebots, children learn to design a program to move their robot around a mat. They then design, make and test a floor mat. They fix errors (debug).	Sequencing Sounds Using scratch, the children use motion and sound in their sequences. The final project is for children to make a representation of a piano.	Repetition in shapes Using the turtle academy, children plan, modify and test to create shapes and patterns using text – based programming language.	Selection in physical computing Children learn to connect and program a (crumble) component through the application of existing knowledge.	Variables in games Children use the; task, design code, run model in scratch to create a game that has a simulation of a scoreboard.
Summer 1 Programming B	Digital literacy: Use an ipad / camera to record observation (Photos and videos)	Programming animations Using scratchJr, children build on their knowledge of programming (Beebots) to add, delete and programme sprites.	An introduction to quizzes Using scratchJr, children learn about and then apply learning to design a quiz with chosen questions, characters & backgrounds.	Events and actions Using scratch, children explore movement within the context of a maze. They design and code their own maze – tracing program.	Repetition in games Children use scratch to apply stages of programming design to create a game which uses repetition.	Selection in quizzes Children create a quiz in scratch. They write a program to ask questions and use selection to control the outcomes based on answers given.	Sensing Using micro: bit, or the micro:bit website, children use code to instruct the micro bit to perform in different functions.

<p>Summer 2 Creating media</p>	<p>Timers and Stop watches</p>	<p>Digital Painting Use the Paintz.app website. Children learn how to use a range of shape tools, brush tools and colour choices to create art based on Kandinsky.</p>	<p>Digital Photography Use the I pads and the Pixlr app. Children learn how to take landscape and portrait photos considering natural lighting and a flash. They use the Pixlr app to edit the effect of an image.</p>	<p>Animation Children learn stop frame animation using their ipads. (Imotion app) Children create a stop frame animation with 'moving' pictures, text and music.</p>	<p>Audio editing Children use audacity to learn how to record and edit a podcast, including multiple tracks. Export and save audio files and give feedback to peers.</p>	<p>Vector drawing Children use PPT, Publisher or Google Drawings to learn about Vector drawings. They will then create, resize, copy, paste and modify vector drawings.</p>	<p>Web page creation Children learn how to create their own web page using google sites. They design and evaluate their own website paying attention to copyright and fair use of the internet, aesthetics and navigation paths.</p>
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