Broadmayne First School Computing Scheme of Work

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Across the year children have experience of: using iPads to access apps, controlling simple devices such as Beebots, turning appliances off and on, how to turn things off and tell an adult if you see something you don't like, using the touch screen for art and mark making, recognising simple technology in the world around them, exploring the use of technology in the world around them.					
Year 1	Computing systems and networks – Technology around us *To identify technology* *To identify a computer and its main parts* *To use a mouse in different ways* *To use a keyboard to type on a computer* *To use the keyboard to edit text* *To create rules for using technology responsibly*	Creating media – Digital painting *To describe what different freehand tools do* *To use the shape tool and the line tools* *To make careful choices when painting a digital picture* *To explain why I chose the tools I used* *To use a computer on my own to paint a picture* *To compare painting a picture on a computer and on paper*	Programming A – Moving a robot *To explain what a given command will do* *To act out a given word* *To combine forwards and backwards commands to make a sequence* *To combine four direction commands to make sequences* *To plan a simple program* *To find more than one solution to a problem*	Data and information – Grouping data *To label objects* *To identify that objects can be counted* *To describe objects in different ways* *To count objects with the same properties* *To compare groups of objects* *To answer questions about groups of objects*	Creating media – Digital writing *To use a computer to write* *To add and remove text on a computer* *To identify that the look of text can be changed on a computer* *To make careful choices when changing text* *To explain why I used the tools that I chose* *To compare typing on a computer to writing on paper*	Programming B – Introduction to animation *To choose a command for a given purpose* *To show that a series of commands can be joined together* *To identify the effect of changing a value* *To explain that each sprite has its own instructions* *To design the parts of a project* *To use my algorithm to create a program*
Year 2	Computing systems and networks – IT around us *To recognise the uses and features of information technology* *To identify the uses of information technology in the*	Creating media – Digital photography *To use a digital device to take a photograph* *To make choices*	Programming A – Robot algorithms *To describe a series of instructions as a sequence* *To explain what happens when we*	Data and information – Pictograms *To recognise that we can count and compare objects using tally charts*	Creating media – Making music *To say how music can make us feel* *To identify that there are patterns in music*	Programming B – An introduction to quizzes *To explain that a sequence of commands has a start*

	school *To identify information technology beyond school* *To explain how information technology helps us* *To explain how to use information technology safely* *To recognise that choices are made when using information technology*	*when taking a photograph* *To describe what makes a good photograph* *To decide how photographs can be improved* *To use tools to change an image* *To recognise that photos can be changed*	*change the order of instructions* *To use logical reasoning to predict the outcome of a program (series of commands)* *To explain that programming projects can have code and artwork* *To design an algorithm* *To create and debug a program that I have written*	*To recognise that objects can be represented as pictures* *To create a pictogram* *To select objects by attribute and make comparisons* *To recognise that people can be described by attributes* *To explain that we can present information using a computer*	*To describe how music can be used in different ways* *To show how music is made from a series of notes* *To create music for a purpose* *To review and refine our computer work*	*To explain that a sequence of commands has an outcome* *To create a program using a given design* *To change a given design* *To create a program using my own design* *To decide how my project can be improved*
Year 3	Computing systems and networks – Connecting computers *To explain how digital devices function* *To identify input and output devices* *To recognise how digital devices can change the way that we work* *To explain how a computer network can be used to share information* *To explore how digital devices can be connected* *To recognise the physical components of a network*	Creating media – Animation *To explain that animation is a sequence of drawings or photographs* *To relate animated movement with a sequence of images* *To plan an animation* *To identify the need to work consistently and carefully* *To review and improve an animation* *To evaluate the impact of adding other media to an animation*	Programming A – Sequence in music *To explore a new programming environment* *To identify that commands have an outcome* *To explain that a program has a start* *To recognise that a sequence of commands can have an order* *To change the appearance of my project* *To create a project from a task description*	Data and information – Branching databases *To create questions with yes/no answers* *To identify the object attributes needed to collect relevant data* *To create a branching database* *To explain why it is helpful for a database to be well structured* *To identify objects using a branching database* *To compare the information shown in a pictogram with a branching*	Creating media – Desktop publishing *To recognise how text and images convey information* *To recognise that text and layout can be edited* *To choose appropriate page settings* *To add content to a desktop publishing publication* *To consider how different layouts can suit different purposes* *To consider the benefits of desktop publishing*	Programming B – Events and actions *To explain how a sprite moves in an existing project* *To create a program to move a sprite in four directions* *To adapt a program to a new context* *To develop my program by adding features* *To identify and fix bugs in a program* *To design and create a maze-based challenge*

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				database		
Year 4	Computing systems and networks – The Internet *To describe how networks physically connect to other networks* *To recognise how networked devices make up the internet* *To outline how websites can be shared via the World Wide Web (WWW)* *To describe how content can be added and accessed on the World Wide Web (WWW)* *To recognise how the content of the WWW is created by people* *To evaluate the consequences of unreliable content*	Creating media – Audio editing *To identify that sound can be digitally recorded* *To use a digital device to record sound:* *To explain that a digital recording is stored as a file:* *To explain that audio can be changed through editing:* *To show that different types of audio can be combined and played together:* *To evaluate editing choices made:*	Programming A – Repetition in shapes *To identify that accuracy in programming is important* *To create a program in a text-based language* *To explain what 'repeat' means* *To modify a count-controlled loop to produce a given outcome* *To decompose a task into small steps* *To create a program that uses count-controlled loops to produce a given outcome*	Data and information – Data logging *To explain that data gathered over time can be used to answer questions* *To use a digital device to collect data automatically* *To explain that a data logger collects 'data points' from sensors over time* *To use data collected over a long duration to find information* *To identify the data needed to answer questions* *To use collected data to answer questions*	Creating media – Photo editing *To explain that digital images can be changed* *To change the composition of an image* *To describe how images can be changed for different uses* *To make good choices when selecting different tools* *To recognise that not all images are real* *To evaluate how changes can improve an image*	Programming B – Repetition in games *To develop the use of count-controlled loops in a different programming environment* *To explain that in programming there are infinite loops and count-controlled loops* *To develop a design that includes two or more loops which run at the same time* *To modify an infinite loop in a given program* *To design a project that includes repetition* *To create a project that includes repetition*