Computing Curriculum Overview

Cycle A	Autumn		Spring		Summer	
Hodder Year 1/2	**Technology around us** • To know the main parts or a computer. • To know how a mouse and keyboard can be used as a input. • To know ways to use technology responsibly **Information technology around us** • To identify the uses of information technology in school • To identify information technology beyond school • To know how information technology helps us • To know that choices are made when using information technology.	**Digital painting** • To know that you can paint a picture on a computer and on paper • To know how to use different freehand tools on a paint program. • To know how to use the shape and the line tools.	**Moving a robot** • To know what a command will do • To know how to combine forwards and backwards commands to make a sequence • To know how to combine four direction commands to make sequences • To know that there can sometimes be more than one solution to a problem	**Grouping data** • To know how to describe objects in different ways • To know how to count objects with the same properties • To know how to compare groups of objects	**Digital writing** • To know that you can type on a computer. • To know how to add and remove text on a computer • To know how to change the look of text on a computer • To know the differences when typing on a computer to writing on paper	**Programming animations** • To know that commands can be given to fulfil a given purpose • To know that a series of commands can be joined together to make a program (algorithm). • To know the effect of changing a value in a program. • To know what a sprite is and explain that each sprite will have its own instructions.

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Ribble Year Y3/4	**Connecting computers** • To know a selection of input and output devices. • To know that digital devices can change the way we work • To know that a computer network can be used to share information • To begin to understand how digital devices can be connected • To know some of the physical components of a network **The internet** • To know how networked devices make up the internet • To know that websites can be shared via the World Wide Web (WWW) • To know that the content of the WWW is created by people • To know that the (WWW) can contain unreliable content	**Stop-frame animation** • To know that animation is a sequence of drawings or photographs • To know that animated movement is a sequence of images • To know that you need to work consistently and carefully	**Sequencing sounds** • To know that commands have an outcome • To know that a program (algorithm) has a start • To know that a sequence of commands can have an order	**Branching databases** • To know that branching databases use questions with yes/no answers • To know that the attributes needed to collect data about an object • To know why it is helpful for a database to be well structured • To know how to independently create an identification tool	**Desktop publishing** • To know that text and images convey information • To know that text and layout can be edited • To know how to add content to a desktop publishing publication • To consider how different layouts can suit different purposes • To know some benefits of desktop publishing	**Events and actions in programs** • To explain how a sprite moves in an existing project • To know how to create a program to move a sprite in four directions • To know how to adapt a program to a new context • To know how to identify and fix bugs in a program (debug).

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Wyre Year 5/6	**Systems and searching** • To know that computers can be connected together to form systems • To know the role of computer systems in our lives • To know that there are a range of search engines • To know how search engines select results • To know how search results are ranked **Communication and collaboration** • To know how data is transferred across the internet • To know how sharing information online can help people to work together • To recognise how we communicate using technology	**Video production** • To identify digital devices that can record video • To know how to capture video using a range of techniques • To know the importance of creating a storyboard • To know that video can be improved through reshooting and editing • To consider the impact of the choices made when making and sharing a video	**Programming: BBC Microbits – Getting Active** • To know how to create a program that controls a physical computing project • To know that a loop can stop when a condition is met • To know that a loop can be used to repeatedly check whether a condition has been met • To know how to create a program that controls a physical computing project	**Flat-file databases** • To know how a computer-based database is helpful. • To know how you can answer questions by grouping and then sorting data • To know that computer programs can be used to compare data visually	**Vector drawing** • To know how to create a vector drawing by combining shapes • To recognise that vector drawings consist of layers • To know how to group objects to make them easier to work with	**Selection in quizzes** • To know how selection is used in computer programs • To relate that a conditional statement connects a condition to an outcome • To know how selection directs the flow of a program

Cycle B	Autumn		Spring		Summer	
Hodder Year 1/2	**Technology around us** • To know the main parts or a computer. • To know how a mouse and keyboard can be used as a input. • To know ways to use technology responsibly **Information technology around us** • To identify the uses of information technology in school • To identify information technology beyond school • To know how information technology helps us • To know that choices are made when using information technology.	**Digital photography** • To know how to use a digital device to take a photograph • To know what makes a good photograph • To consider how photographs can be improved • To know that photos can be changed	**Moving a robot** • To know that a series of instructions as a sequence • To explain what happens when we change the order of instructions • To know that programming projects can have code and artwork • To know how to create and debug a simple program that I have written	**Pictograms** • To know that we can count and compare objects using tally charts • To know that objects can be represented as pictures • To know that objects can be described by attributes and can be compared • To recognise that people can be described by attributes • To know that we can present information using a computer	**Making music** • To know that there are patterns in music • To experiment with sound using a computer • To know how to use a computer to create a musical pattern • To know how to review and refine our computer work	**Programming quizzes** • To know that a sequence of commands has a start • To know that a sequence of commands has an outcome • To know how to create a program using my own design • To decide how my project can be improved

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