

Cheadle Primary – the school at the heart of the village, free to flourish, ready to learn and succeed. Progression of Skills and Knowledge: COMPUTING Year 1						
Topic	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>National Curriculum Learning Intentions</b>	1 Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions 2 Create and debug simple programs 3 Use logical reasoning to predict the behaviour of simple programs 4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content 5 Recognise common uses of information technology beyond school 6 Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies					
<b>NC LINKS</b>	4,5,6	4	1,2,3,5	4,5	4,6	1,2,3,4,6
<b>Computing Units</b>	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
<b>Computing Topics</b>	Technology around us	Digital painting	Moving a robot	Grouping data	Digital writing	Programming animations
<b>Key Knowledge</b>	Recognising technology in school and using it responsibly	Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Writing short algorithms and programs for floor robots, and predicting program outcomes.	Exploring object labels, then using them to sort and group objects by properties	Using a computer to create and format text, before comparing to writing non-digitally	Designing and programming the movement of a character on screen to tell stories
<b>Key Skills</b>	explain technology as something that helps us locate examples of technology in the classroom switch on and log into a computer use a mouse to click and drag click and drag to make objects on a screen use a mouse to create a picture use a mouse to open a program save my work to a file say what a keyboard is for type my name on a computer delete letters open my work from a file identify rules to keep us safe and healthy when we are using technology in and beyond the home	draw lines on a screen and explain which tools I used make marks on a screen and explain which tools I used use the paint tools to draw a picture use the shape and line tools make appropriate colour choices say which tools were helpful and why know that different paint tools do different jobs change the colour and brush sizes make dots of colour on the page say whether I prefer painting using a computer or using paper spot the differences between painting on a computer and on paper	match a command to an outcome predict the outcome of a command on a device run a command on a device" follow an instruction give directions compare forwards and backwards movements predict the outcome of a sequence involving forwards and backwards commands compare left and right turns experiment with turn and move commands to move a robot predict the outcome of a sequence involving up to four commands debug my program explain what my program should do" use two different programs to get to the same place"	describe objects using labels identify the label for a group of objects match objects to groups count a group of objects group objects describe an object group objects in more than one way group similar objects choose how to group objects record how many objects are in a group compare groups of objects decide how to group objects to answer a question record and share what I have found	identify and find keys on a keyboard open a word processor recognise keys on a keyboard" enter text into a computer use backspace to remove text use letter, number, and space keys explain what the keys that I have learnt about already do identify the toolbar and use bold, italic, and underline type capital letters change the font select a word by double-clicking" say what tool I used to change the text use 'undo' to remove changes" explain the differences between typing and writing make changes to text on a computer say why I prefer typing or writing	find which commands to move a sprite use commands to move a sprite run my program use a Start block in a program use more than one block by joining them together change a value find blocks that have numbers say what happens when I change a value add blocks to each of my sprites delete a sprite show that a project can include more than one sprite" choose appropriate artwork for my project create an algorithm for each sprite decide how each sprite will move test the programs I have created use sprites that match my design"
<b>Learning Intentions</b>	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	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	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	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	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	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
<b>Resources</b>	Google Slides	Digital camera	Bee-Bot, Blue-Bot, or other fixed-movement floor robot	<a href="#">i2data Pictogram</a>	<a href="#">Chrome Music Lab</a>	ScratchJr
<b>Cross Curricular Links</b>	<a href="#">Education for a Connected World links</a>	Art <a href="#">Education for a Connected World links</a>		Maths <a href="#">Education for a Connected World links</a>	English <a href="#">Education for a Connected World links</a>	
<b>Progression</b>	As this is a Year 1 unit, no prior knowledge is assumed. This unit progresses students' knowledge and understanding of technology and how they interact with it in school. Learners will build their knowledge of parts of a computer and develop the basic skills needed to effectively use a computer keyboard and mouse. This unit directly precedes the Y2 Computer systems and networks unit, IT around us	Learners should be familiar with: <ul style="list-style-type: none"> <li>How to switch their device on</li> <li>Username</li> <li>Passwords</li> </ul>	This unit progresses students' knowledge and understanding of giving and following instructions. It moves from giving instructions to each other to giving instructions to a robot by programming it.	This unit will introduce learners to data and information. It will introduce learners to the concept of labelling and grouping objects based on their properties. Learners will develop their understanding that objects can be given labels, which is fundamental to their future learning concerning databases and spreadsheets. In addition, learners will begin to improve their ability to use dragging and dropping skills on a device. Following this unit, in year 2, learners will present data graphically in pictograms.	This unit progresses the learners' knowledge and understanding of using computers to create and manipulate digital content, focussing on using a word processor. The learners will develop their ability to find and use the keys on a keyboard in order to create digital content. The learners are then introduced to manipulating the resulting text, making cosmetic changes, and justifying their reason for making these changes. Following this unit, learners will further develop their digital writing skills in the Year 3 – 'Desktop publishing' unit and the Year 6 – 'Web page development' unit.	This unit progresses learners' knowledge and understanding of programming and follows on from 'Programming A – Moving a robot', where children will have learned to program a floor robot using instructions.