

Computing Curriculum Key Stage 1 Progression of Skills

National Curriculum Pupils should be taught to:	What does this look like in each year group?	
	Year 1	Year 2
1. Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions	<ul style="list-style-type: none"> • run a command on a device • follow an instruction • give directions • recall words that can be acted out • predict the outcome of a sequence involving forwards and backwards commands • start a sequence from the same place • experiment with turn and move commands to move a robot • create an algorithm for each sprite • add programming blocks based on my algorithm 	<ul style="list-style-type: none"> • choose a series of words that can be enacted as a sequence • follow instructions given by someone else • give clear and unambiguous instructions • create different algorithms for a range of sequences (using the same commands) • use an algorithm to program a sequence on a floor robot • follow a sequence • create an algorithm to meet my goal • explain what my algorithm should achieve • use my algorithm to create a program • plan algorithms for different parts of a task • tell the actions of a sprite in an algorithm
2. Create and debug simple programs	<ul style="list-style-type: none"> • choose the order of commands in a sequence • debug my program • explain what my program should do • identify several possible solutions • plan two programs • use two different programs to get to the same place • 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 • decide how each sprite will move • test the programs I have created • use sprites which match my design 	<ul style="list-style-type: none"> • put together the different parts of my program • test and debug each part of the program • show the difference in outcomes between two sequences that consist of the same commands • identify that a program needs to be started • identify the start of a sequence • show how to run my program • change the outcome of a sequence of commands • build the sequences of blocks I need • decide which blocks to use to meet the design • choose backgrounds for the design • choose characters for the design • create a program based on the new design • build sequences of blocks to match my design • choose the images for my own design • create an algorithm • compare my project to my design • debug my program • improve my project by adding additional features
3. Use logical reasoning to predict the behaviour of simple programs	<ul style="list-style-type: none"> • match a command to an outcome • predict the outcome of a command on a device • predict the outcome of a sequence involving up to four commands • compare left and right turns • compare different programming tools • find which commands 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 the value • find blocks which have numbers 	<ul style="list-style-type: none"> • compare my prediction to the program outcome • predict the outcome of a sequence • match two sequences with the same outcome • predict the outcome of a sequence of commands
4. Use technology purposefully to create, organise, store, manipulate and retrieve digital content	<ul style="list-style-type: none"> • choose appropriate artwork for my project • name the main parts of a computer • 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 • tell you that writing on a computer is called typing • type my name on a computer • delete letters • open my work from a file • use the arrow keys to move the cursor • 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 • make marks with the square and line tools • use the shape and line tools effectively • use the shape and line tools to recreate the work of an artist • choose appropriate shapes • create a picture in the style of an artist • make appropriate colour choices • choose appropriate paint tools and colours to recreate the work of an artist • say which tools were helpful and why 	<ul style="list-style-type: none"> • capture digital photos and talk about my experience • sort devices into old and new • talk about how to take a photograph • explain the process of taking a good photograph • explain why a photo looks better in portrait or landscape format • take photos in both landscape and portrait format • discuss how to take a good photograph • identify what is wrong with a photograph • improve a photograph by retaking it • experiment with different light sources • explore the effect that light has on a photo • focus on an object • explain my choices • use a tool to achieve a desired effect • apply a range of photography skills to capture a photo • identify which images are real and which have been changed • recognise which images have been changed • move and resize images • open a file • compare types of information technology • find examples of information technology • talk about uses of information technology • enjoy a variety of activities • identify the choices that I make when using information technology

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	<ul style="list-style-type: none"> • I know that different paint tools do different jobs • change the colour and brush sizes • make dots of colour on the page • use dots of colour to create a picture in the style of an artist on my own • explain that pictures can be made in lots of different ways • say whether I prefer painting using a computer or using paper • spot the differences between painting on a computer and on paper 	<ul style="list-style-type: none"> • describe how music makes me feel, e.g. happy or sad • identify simple differences in pieces of music • create a rhythm pattern • connect images with sounds • relate an idea to a piece of music • use a computer to experiment with pitch and duration • identify that music is a sequence of notes • refine my musical pattern on a computer • use a computer to create a musical pattern using three notes • describe an animal using sounds (link to prior learning in Music in KS1 – Saint- Saëns) • save my work in the right place
<p>5. Recognise common uses of information technology beyond school</p>	<ul style="list-style-type: none"> • explain technology as something that helps us • locate examples of technology in the classroom 	<ul style="list-style-type: none"> • describe some uses of computers • identify examples of computers • identify that a computer is a part of information technology • explain the purpose of information technology in the home • demonstrate how information technology is used in a shop • explain how information technology helps people • recognise that information technology can be connected • list different uses of information technology • recognise that images can be changed
<p>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</p>	<ul style="list-style-type: none"> • discuss how we benefit from rules that we make around technology use • give examples of some of these rules • identify rules to keep us safe and healthy when we are using technology in and beyond the home 	<ul style="list-style-type: none"> • explain simple guidance for using information technology in different environments and settings • recognise how to use information technology responsibly • say how those rules/guides can help me to stay safe