Pickering Community Infant and Nursery School Progress Document
Computing Learning Outcomes

	Nursery	Reception	Key Stage One
Computing Systems and Networks	I can use a mouse to click to select I can describe what happened as a result of my mouse click I can say that different things can happen when I click using a mouse depending on what I'm clicking on I can talk about the effect that happens when I cause a change I can operate a CD player	I can use a mouse to click and drag I can explain technology as something that helps us I can identify technology from my familiar surroundings I can identify a mouse, screen, keyboard, printer and speakers I can use a keyboard to enter my username and password	**1.1 Information Technology Around Us (Teach Computing)** I can name the main parts of a computer I can switch on and log into a computer I can use a mouse to click and drag I can use a mouse to open a program I can click and drag to make objects on a screen I can use a mouse to create a picture I can say what a keyboard is for I can type my name on a computer I can save my work to a file I can open my work from a file I can use the arrow keys to move the cursor I can delete letters I can identify rules to keep us safe and healthy when we are using technology in and beyond the home

			I can give examples of some of these rules I can discuss how we benefit from these rules

			2.1 IT Around Us (Teach Computing) I can identify examples of computers I can describe some uses of computers I can identify that a computer is a part of IT I can identify examples of IT I can sort school IT by what it's used for I can identify that some IT can be used in more than one way I can find examples of information technology I can sort IT by where it is found I can talk about uses of information technology I can recognise common types of technology I can demonstrate how IT devices work together I can say why we use IT I can list different uses of information technology I can talk about different rules for using IT I can say how rules for using IT safely can help to keep me safe I can identify the choices that I make when using IT I can identify the choices that I make when using IT I can use IT for different types of activities

			I can explain the need to use IT in different ways
Vocabulary	mouse, click, computer, tablet/iPad till, traffic light (2.1 Information technology around us)	keyboard, keys, printer, speakers username, password laptop, bank card, crossing button, crossing light (2.1 Information technology around us)	screen, base unit double click, select log on, save technology (1.1 Technology around us) information technology, PC, scanners, barcode, barcode scanner, smart speakers, chip and pin card reader (2.1 Information technology around us)

Creating Media	I can take a photo on an iPad or with a digital camera. I can select tools and make marks with them on a screen	I can make marks on a screen and explain which tools I used I can draw lines on a screen and explain which tools I used I can recognise keys on a keyboard I can say what device or devices I can take a photograph with I can load the camera app on an iPad and take a photograph. I can switch on a digital camera, take a photograph and switch the camera off. I can talk about a pattern, spotting similarities and trends. I can talk about the focal point of a photographic composition. I can talk about what I like about an image that has been made on a computer compared to one made on paper.	**<u>1.2 Digital Painting (Teach Computing)</u>** I can make marks on a screen in a paint programme and explain which tools I used I can draw lines on a screen in a paint programme and explain which tools I used I can use the paint tools to draw a picture I can make marks with the square and line tools I can use the shape and line tools effectively I can use the shape and line tools to recreate the work of an artist I can choose appropriate shapes I can make appropriate colour choices I can create a picture in the style of an artist I can explain that different paint tools do different jobs I can use a range of appropriate paint tools to recreate the work of an artist I can say which tools were helpful and why I can make dots of colour on the page I can change the colour and brush sizes I can use dots of colour to create a picture in the style of an artist on my own

			I can explain that pictures can be made in lots of different ways I can spot the differences between painting on a computer and on paper I can say whether I prefer painting using a computer or using paper

			1.5 Digital Writing (Teach Computing) I can open a word processor I can recognise keys on a keyboard I can identify and find keys on a keyboard I can enter text into a computer I can use letter, number and space keys I can use backspace to remove text I can type capital letters I can explain what the keys that I have already learnt about do I can identify the toolbar and use bold, italic and underline I can select a word by double-clicking I can select all of the text by clicking and dragging I can change the font I can say what tool I used to change the text I can decide if my changes have improved my writing I can use 'Undo' to remove changes I can make changes to text on a computer

			I can explain the differences between typing and writing I can say why I prefer typing or writing

			2.2 Digital Photography (Teach Computing) I can recognise what devices can be used to take photographs I can talk about how to take a photograph I can explain what I did to capture a digital photo I can explain the process of taking a good photograph I can take photos in both landscape and portrait format I can explain why a photo looks better in portrait or landscape format I can identify what is wrong with a photograph I can discuss how to take a good photograph I can improve a photograph by retaking it I can explore the effect that light has on a photo I can experiment with different light sources I can explain why a picture may be unclear I can recognise that images can be changed I can use a tool to achieve a desired effect I can explain my choices I can apply a range of photography skills to capture a photo I can recognise which photos have been changed

			I can identify which photos are real and which have been changed

			2.5 Making Music (Teach Computing) I can identify simple differences in pieces of music I can listen with concentration to a range of music (links to the Music curriculum) I can describe how music makes me feel, e.g. happy or sad I can create a rhythm pattern I can play an instrument following a rhythm pattern I can explain that music is created and played by humans I can connect images with sounds I can use a computer to experiment with pitch and duration I can relate an idea to a piece of music I can identify that music is a sequence of notes I can use a computer to create a musical pattern using three notes I can refine my musical pattern on a computer I can describe an animal using sounds I can explain my choices I can save my work

			I can reopen my work I can explain how I made my work better I can listen to music and describe how it makes me feel
Vocabulary	paintbrush, pencil, pen, highlighter, shape, line (1.2 Digital painting) camera, photo, light, change (2.2 Digital photography)	tools, artist, erase, undo (1.2 Digital painting) digital camera (2.2 Digital photography) patterns (2.5 Making music)	font, caps lock, shift, toolbar, select, backspace, space, undo, fill, spray can (1.2 Digital painting) drag, bold, italic, underline (1.5 Digital writing) landscape, portrait, focus, blurry, edit (2.2 Digital photography) rhythm, melody (2.5 Making music)

Programming	I can follow a series of verbal instructions to achieve a specific outcome, for example, making jelly, making toast, creating a craft item. I can say that something will not work when I am given these instructions incorrectly, out of order.	I can follow a series of written and/or pictorial instructions, with help, to achieve a specific outcome, for example, making sandwiches, baking biscuits. I can use a simple algorithm to program a floor robot to complete a command. I can explain that instructions need to be followed in order or the task will not be completed correctly. I can say what I think will happen, thinking about what has happened before. I can break down a problem into smaller parts to be able to solve it. I can talk about if a solution to a problem was successful and how it could be improved.	**<u>1.3 Moving a Robot (Teach Computing)</u>** I can predict the outcome of a command on a device I can match a command to an outcome I can run a command on a device I can follow an instruction I can recall words that can be acted out I can give directions I can compare forwards and backwards movements I can start a sequence from the same place I can predict the outcome of a sequence involving forwards and backwards commands I can compare left and right turns I can experiment with turn and move commands to move a robot I can predict the outcome of a sequence involving up to four commands I can explain what my program should do I can choose the order of commands in a sequence I can debug my program

			I can identify several possible solutions I can plan two programs I can use two different programs to get to the same place

			1.6 Programming Animations (Teach Computing) I can find the commands to move a sprite I can use commands to move a sprite I can compare different programming tools I can use more than one block by joining them together I can use a **Start** block in a program I can run my program I can find blocks that have numbers I can change the value I can say what happens when I change a value I can show that a project can include more than one sprite I can delete a sprite I can add blocks to each of my sprites I can choose appropriate artwork for my project I can decide how each sprite will move I can create an algorithm for each sprite I can use sprites that match my design

			I can add programming blocks based on my algorithm I can test the programs I have created

			2.3 Robot Algorithms (Teach Computing) I can follow instructions given by someone else I can choose a series of words that can be acted out as a sequence I can give clear instructions I can use the same instructions to create different algorithms I can use an algorithm to program a sequence on a floor robot I can show the difference in outcomes between two sequences that consist of the same instructions I can follow a sequence I can predict the outcome of a sequence I can compare my prediction to the program outcome I can explain the choices that I made for my mat design I can identify different routes around my mat I can test my mat to make sure that it is usable I can explain what my algorithm should achieve I can create an algorithm to meet my goal I can use my algorithm to create a program

			I can test and debug each part of the program I can plan algorithms for different parts of a task I can put together the different parts of my program

			2.6 Programming Quizzes (Teach Computing) I can identify the start of a sequence I can identify that a program needs to be started I can show how to run my program I can predict the outcome of a sequence of commands I can match two sequences with the same outcome I can change the outcome of a sequence of commands I can work out the actions of a sprite in an algorithm I can decide which blocks to use to meet the design I can build the sequences of blocks I need I can choose backgrounds for the design I can choose characters for the design I can create a program based on the new design I can choose the images for my own design I can create an algorithm I can build sequences of blocks to match my design I can compare my project to my design I can improve my project by adding features

			I can debug
Vocabulary	buttons (1.3 Moving a robot)	go, clear, left, right, forwards, backwards (1.3 Moving a robot)	direction, instruction (1.3 Moving a robot) program, run (1.6 Programming animations) sequence/order, debug (2.3 Robot algorithms) outcome (2.6 Programming quizzes)
Data and Information			**1.4 Grouping Data (Teach Computing)** I can describe objects using labels I can match objects to groups I can identify the label for a group of objects I can count objects I can group objects I can count a group of objects I can describe an object I can describe a property of an object I can find objects with similar properties I can group similar objects I can group objects in more than one way I can count how many objects share a property I can choose how to group objects I can describe groups of objects I can record how many objects are in a group

			I can decide how to group objects to answer a question I can compare groups of objects I can record and share what I have found
			2.4 Pictograms (Teach Computing) I can record data in a tally chart I can represent a tally count as a total I can compare totals in a tally chart I can enter data onto a computer I can use a computer to view data in a different format I can use pictograms to answer simple questions about objects I can organise data in a tally chart I can use a tally chart to create a pictogram I can explain what the pictogram shows I can tally objects using a common attribute I can create a pictogram to arrange objects by an attribute I can answer 'more than'/'less than' and 'most/least' questions about an attribute

			I can choose a suitable attribute to compare people I can collect the data I need I can create a pictogram and draw conclusions from it I can use a computer program to present information in different ways I can share what I have found out using a computer I can give simple examples of why information should not be shared
Vocabulary		object, label, group (1.4 Grouping data) more/less than (2.4 Pictograms)	property, data set (1.4 Grouping data) data, tally chart, attribute, pictograms, block diagrams (2.4 Pictograms)