Computing Skills Progression

	2 year olds	3/4 year olds	Reception	Year 1	Year 2
Use technology safely	- experience of and exposure to technology	- experience of and exposure to technology. - know who to talk to if they see something they don't like online.	- experience of and exposure to technology. - know who to talk to if they see something they don't like online.	- identify what things count as personal information. - seek help from an adult when they see something that is unexpected or worrying. - demonstrate how to safely open and close applications and log on and log off from websites. - discuss how we benefit from the online safety rules. - give examples of some of the online safety rules. - identify rules to keep us safe and healthy when we are using technology in and beyond the home.	- identify what is appropriate and inappropriate behaviour on the internet. - agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords. - say how online safety rules can help keep me safe. - talk about different online safety rules for using IT.
Computing systems and networks	**Role play** -role play using devices and related equipment (phones, keyboards, monitors, remotes)	**Role play** -role play using devices and related equipment (phones, keyboards, monitors, remotes)	**Role play** -role play using devices and related equipment (phones, keyboards, monitors, remotes) in context (office, schools, hair dressers, tills in shops, travel agents, police station) -name technology that they use at home	**Technology around us** - explain how these technology examples help us. - explain technology as something that helps us. - locate examples of technology in the classroom. - name the main parts of a computer. - switch on and log into a computer.	**IT around us** - describe some uses of computers. - identify examples of computers. - identify that a computer is a part of IT. - identify examples of IT. - identify that some IT can be used in more than one way. - sort school IT by what it's used for.

				- 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 digital device. - delete letters. - open my work from a file. - use the arrow keys to move the cursor. - discuss how we benefit from the online safety rules. - give examples of some of the online safety rules. - identify rules to keep us safe and healthy when we are using technology in and beyond the home.	- find examples of information technology. - sort IT by where it is found. - talk about uses of information technology. - demonstrate how IT devices work together. - recognise common types of technology. - say why we use IT. - list different uses of information technology. - say how online safety rules can help keep me safe. - talk about different online safety rules for using IT. - explain the need to use IT in different ways. - identify the choices that I make when using IT. - use IT for different types of activities.
Creating media	**<u>Explore</u>** - press buttons to make noise	**<u>Explore</u>** -mark making on a digital surface - press buttons to make noise	**<u>Digital Creation</u>** - use drawings apps to explore and create - use music apps to explore and create -explore different buttons on apps - know how to change a tool by pressing a button	**<u>Digital Painting</u>** - 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.	**<u>Digital photography</u>** - explain what I did to capture a digital photo. - recognise what devices can be used to take photographs. - talk about how to take a photograph.

				- 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. - 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 digital device or using paper.	- 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. - explain why a picture may be unclear. - explore the effect that light has on a photo. - explain my choices. - recognise that images can be changed. - use a tool to achieve a desired effect. - apply a range of photography skills to capture a photo. - identify which photos are real and which have been changed. - recognise which photos have been changed. **<u>Digital music</u>**

				- spot the differences between painting on a digital device and on paper. **<u>Digital writing</u>** - identify and find keys on a keyboard. - open a word processor. - recognise keys on a keyboard. - enter text into a digital device. - 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 all of the text by clicking and dragging. - select a word by double-clicking. - decide if my changes have improved my writing. - say what tool I used to change the text. - use 'undo' to remove changes.	- describe music using adjectives. - identify simple differences in pieces of music. - say what I do and don't like about a piece of music. - create a rhythm pattern. - explain that music is created and played by humans. - play an instrument following a rhythm pattern. - connect images with sounds. - relate an idea to a piece of music. - use a digital device to experiment with pitch. - explain how my music can be played in different ways. - identify that music is a sequence of notes. - refine my musical pattern on a digital device. - add a sequence of notes to my rhythm. - create a rhythm which represents an animal I've chosen.

				- explain the differences between typing and writing. - make changes to text on a digital device. - say why I prefer typing or writing.	- create my animal's rhythm on a digital device. - explain how I changed my work. - listen to music and describe how it makes me feel. - review my work.
Programming	**<u>Explore cause and effect</u>** - press buttons (on toys and everyday objects) to cause an outcome - transport objects from one place to another (rolling balls, moving water, retrieving toys)	**<u>Explore cause and effect</u>** - press buttons (on toys and everyday objects) to cause an outcome - transport objects from one place to another (rolling balls, moving water, retrieving toys) -follow a simple instruction	**<u>Exploring a robot</u>** -explore how a floor robot moves - experiment with how to make a robot move - explain how to make a robot move - relate pressing the buttons to the robot moving -relate that the order the buttons are pressed changes the outcome -identify when the robot didn't move as intended -give instructions to a partner -follow instructions **<u>Explore digital games</u>** -explore digital games which involve giving instructions to a character	**<u>Moving a robot</u>** - 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. - recall words that can be acted out. - compare forwards and backwards movements. - predict the outcome of a sequence involving forwards and backwards commands. - start a sequence from the same place. - 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.	**<u>Robot algorithms</u>** - choose a series of words that can be enacted as a sequence. - follow instructions given by someone else. - give clear instructions. - show the difference in outcomes between two sequences that consist of the same commands. - use an algorithm to program a sequence on a floor robot. - use the same instructions to create different algorithms. - compare my prediction to the program outcome. - follow a sequence. - predict the outcome of a sequence. - explain the choices I made for my mat design. - identify different routes around my mat.

			- use buttons to move left, right, up and down	- 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. **<u>Programming animations</u>** - compare different programming tools. - 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 the 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.	- test my mat to make sure that it is usable. - 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. - put together the different parts of my program. - test and debug each part of the program. **<u>Programming quizzes</u>** - 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. - match two sequences with the same outcome. - predict the outcome of a sequence of commands. - build the sequences of blocks I need. - decide which blocks to use to meet the design. - work out the actions of a sprite in an algorithm. - choose backgrounds for the design.

				- choose appropriate artwork for my project. - create an algorithm for each sprite. - decide how each sprite will move. - add programming blocks based on my algorithm. - test the programs I have created. - use sprites that match my 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 features.
Data and information	**Sorting** -use sorting toys	**Sorting** -tidy classroom objects away to the correct area -identify similarities between objects	**Sorting** - sort objects by colour and size - describe similarities between objects	**Grouping data** - describe objects using labels. - identify the label for a group of objects. - match objects to groups. - count a group of objects. - count objects. - group objects. - describe an object. - describe a property of an object. - find objects with similar properties. - count how many objects share a property. - group objects in more than one way. - group similar objects. - choose how to group objects.	**Pictograms** - compare totals in a tally chart. - record data in a tally chart. - represent a tally count as a total. - enter data onto a digital device. - use a digital device to view data in a different format. - use pictograms to answer simple questions about objects. - explain what the pictogram shows. - organise data in a tally chart. - use a tally chart to create a pictogram.

				- describe groups of 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.	- answer 'more than'/'less than' and 'most/least' questions about an attribute. - create a pictogram to arrange objects by an attribute. - tally objects using a common attribute. - choose a suitable attribute to compare people. - collect the data I need. - create a pictogram and draw conclusions from it. - give simple examples of why information should not be shared. - share what I have found out using a digital device. - use a digital device program to present information in different ways.