Farnborough Grange Nursery and Infant School – Curriculum Progression

Computing

EYFS

Nursery	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content	**Technology**	**Technology**	**Art Packages & Sound**	**Internet**	**Control**	**Word processing/Control**
Knowledge	Recognise technology that is used in school and at home.	Know how to operate simple equipment.	Recognise that digital devices can make sounds. Know that technology is used to take photographs.	Know that technology can be used to find out.	Know that you can control floor robots by pressing buttons.	Recognise how pressing on a key will make symbols appear on a screen
Skills	Use technology in role play.	Use a keyboard and mouse with developing control.	Explore sounds that can be made with different types of technology. With help, use a digital device to take photos.	Use technology to find out about an area of interest. Talk about how the technology has been used.	Make a BeeBot move forwards and backwards. Begin to play with remote control toys.	Select applications on a device with purpose Begin to make choices which lead to an action taking place
Key vocabulary	technology, computer, camera, phone, mouse	keyboard, mouse, control, technology	sound, noise device, phone, camera, photo	online, internet	BeeBot, move, forwards, backwards, remote control, instructions	keyboard, mouse, control, technology, app

Reception	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content	**Technology & Sound**	**Cameras**	**Word processing**	**Internet**	**Art Packages**	**Control**
Knowledge	Recognise that clicking a button will perform an action.	Know that when photos are taken they will be saved on a device.	Know that when pressing buttons a keyboard, something will change on the screen.	Know that the internet can be used to find things out. Understand that adult supervision is important when using the internet.	Recognise that technology can be used to create. Know that actions can be undone when using technology.	Know that they can input instructions to make a robot perform an action.
Skills	Use technology in role play, with some accuracy. Turn on the computer and screen. Use a mouse or a touch pad to move the cursor around the screen.	Use the camera/iPad to look at photos. Use a camera/iPad to take a video.	Write name using the correct letters on the keyboard. Use the space bar to put a space between words or letter strings. Choose words from a word bank.	Access the internet using internet explorer or chrome. Use favourites to find a website. Talk about what they find on the internet.	Select different tools to create a picture. Undo mistakes.	Make a remote control toy go where they want it to. Use buttons on a toy to make it go forwards, backwards, left and right.
Key vocabulary	computer, screen, mouse, click	camera, photos, iPad, video, record	type, keyboard, letters, keys, capital letter, space bar, space	internet, favourites, website, online, safe	tools, paint, picture, undo	remote control, move, control, forwards, backwards, left, right, input, algorithm

Key Stage 1

Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content	**Computing systems and networks – Technology around us** **Laptops / paintz.app**	**Creating media – Digital painting** **Laptops / Microsoft paint**	**Programming A – Moving a robot** **Beebots**	**Data and information – Grouping data** **Laptops / Google slides or Microsoft Powerpoint**	**Creating media – Digital writing** **Laptops / Google docs or Microsoft word**	**Programming B – Introduction to animation** **iPads / ScratchJr**
Knowledge	Know what technology. Identify main parts of a computer. Know that different technology has different purposes.	Know that tools can be selected to produce different outcomes. ***Store/retrieve*** *Recognise that information can be stored on a computer.* *Know that saved information can be retrieved.* *Know that retrieved information can be changed.* ***Share*** *Know that others can view work that is visible on a screen.* *Know that work can be shared by printing hard copies, or electronically sharing between devices.*	Know what action a command will perform. Recognise that a series of commands create an algorithm. Know that there can be more than one solution to a problem or challenge.	Know that a group of items can be named or labelled. Know that items can be counted. Recognise items that have the same properties. Recognise that information can be presented in different ways.	Know that a keyboard is used to input text or characters onto a device. Explain why different tools have been chosen. Know how digital writing is different to that produced using pens and paper.	Know that changing the value on a piece of code will change the outcome. Explain that each sprite had its own instructions.
Skills	Select a piece of technology to do a job. Use a mouse in different ways. Use a keyboard to type. Use the keyboard to edit text. Use technology safely.	Use different tools to produce different outcomes. Describe what different freehand tools do. Use the shape tool and the line tools. Choose options to achieve a desired effect. Digitally make marks on a computer screen. Use a computer to paint a picture. ***Store/retrieve***	Act out a given command. Combine forwards and backwards commands to make a sequence. Combine four direction commands to make sequences. Plan a simple program. Run a program on a device. Find more than one solution to a problem.	Label a group of items. Describe objects in different ways. Count objects with the same properties. Compare groups of objects. Answer questions about groups of objects.	Use letter, number and space keys to enter text into a computer. Use punctuation and special characters. Use the backspace key to remove text. Position the text cursor in a chosen location. Use undo. Select text. Change the appearance of text on a computer.	Choose a command for a given purpose. Demonstrate that a series of commands can be joined together to create an algorithm. Design parts of a project. Use an algorithm to create a program.

		Save a piece of work. *Open a saved piece of work.* *Edit a saved piece of work.* ***Share*** *Print a piece of work.*			Choose options to achieve a desired effect. Make careful choices when changing text.	
Key vocabulary	Technology, computer, mouse, trackpad, keyboard, screen, double-dick, typing	Paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, brush style, brush size ***Art vocabulary:*** *Piet Mondrian, primary colours, , Henri Matisse, Wassily Kandinsky, Georges Seurat, pointillism, prefer, dislike*	Forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, plan, algorithm, program, route, debugging	Object, label, group, search, image, property, colour, size, shape, value, colour, data set ***Maths vocabulary:*** more, less, most, fewest, the same	Word processor, keyboard, keys, letters, type, numbers, space, backspace, text cursor, capital letters, toolbar, bold, italic, underline, mouse, select, font, undo, redo, format compare, writing	ScratchJr, Bee-Bot, command, sprite, compare, programming, programming area, block, joining, Start block, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, delete, background, appropriate, design, programming blocks, programs

Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content	**Computing systems and networks – IT around us** **Laptops / Google Slides or Microsoft PowerPoint**	**Creating media – Digital photography** **Digital cameras (iPads)**	**Programming A – Robot algorithms** **Beebots**	**Data and information – Pictograms** **Laptops / JIT5 (j2e.com)**	**Creating media – Making music** **Laptops / Chrome Music Lab (chromeexperiments.com)**	**Programming B – An introduction to quizzes** **iPads / ScratchJr**
Knowledge	Recognise the uses and features of information technology. Identify the uses of information technology in school. Identify information technology beyond school. Explain how information technology helps us. Explain how to use information technology safely. Recognise that choices are made when using information technology.	Know how to direct the camera so that it captures the chosen image. Know how to view images on a digital device. Describe what makes a good photograph. Decide how photographs can be improved. Recognise how photos can be changed by editing and the use of filters.	Know what happens when the order of an algorithm changes. Know that programming projects can include code and artwork.	Know how to enter data onto a computer. Recognise that people, animals and objects can be described by attributes. Explain that we can present information using a computer.	Know how technology can be used to create sounds and music. ***Store/retrieve*** *Recognise that information on a computer can be stored.* *Explain that information on a computer can be saved.* *Explain that stored information can be retrieved, edited and resaved.* ***Share*** *Recognise that people around me can view my screen to see my work.* *Recognise that my work can be printed and shared.* *Recognise that my work can be shared between devices.*	Explain that an algorithm has to have a starting point. Know that when an algorithm turns to code, it will produce an outcome. Know how a final project can be improved.
Skills	Choose a suitable program to achieve the desired outcome. Use different tools to change effects on a screen.	Use a digital device to take a photograph. Take photographs in both landscape and portrait format. Decide which photographs to keep. Use tools to change an image. Hold the camera still to take a clear photograph. Use zoom to change the composition of a photograph. Improve a photograph by retaking it.	Describe a series of instructions as a sequence. Use logical reasoning to predict the outcome of an algorithm (series of commands) Design an algorithm. Create and debug a program that has been written.	Enter data onto a computer. Use a computer to view data in different formats. Use pictograms to answer single-attribute questions. Use a computer to answer comparison questions.	Use a computer to create a piece of music. Review and refine computer work. Create music for a purpose. ***Store/retrieve*** *Save a piece of work.* *Retrieve and edit a piece of work.* ***Share*** *Print and share a piece of work.*	Create a program using a given design. Trace a sequence to make a prediction. Change a given design. Create a program using my own design. Decide how my project can be improved.

Key vocabulary	Information technology (IT), computer, barcode, scanner/scan	Device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter, format	Instruction, sequence, clear, unambiguous, algorithm, program, order, commands prediction, artwork, design, route, mat, debugging	organise, data, object, enter, attribute, sharing ***Maths vocabulary:*** *More than, less than, most, least, , tally chart, votes, total, pictogram, compare, count, explain, more common, least common, group, same, different, conclusion, block diagram*	Open, edit ***Music vocabulary:*** *Music, planets, Mars, Venus, war, peace, quiet, loud, feelings, emotions, pattern, rhythm, Neptune, pitch, tempo, notes, instrument, create, pulse/beat*	Sequence, command, program, run, start outcome, predict, blocks, Sprite, algorithm, design, actions, project, modify, change, build, match, compare, debug, features, evaluate