Guidance Areas	Autumn		Spring		Summer	
	Term 1	**Term 2**	**Term 1**	**Term 2**	**Term 1**	**Term 2**

	Understanding the World- Technology					
Topic/Focus	IT		Computer Science		Online Safety	

Key knowledge	**Plugs –** contain dangerous electricity that can hurt you. **Search –** look for some information. **Instruction –** an order of how to do something **Order -** what happens first, next and then the end. **Mouse-** a device that controls the pointer on a computer **Monitor-** the computer screen **Tablet-** a handheld computer **Keyboard-** what we use to type letters/numbers/ symbols. **Bee bot-** programmable robot **Occupation-** a career or job **Low technology-** washing and drying or transporting water with water to make things work		

| EYFS | **Key skills** | <u>**Low Technologies**</u>
Explore low technologies with water to make things work
Use pipes, funnels and other tools to transport water from one place to another.
Play with cause and effect
<u>**Mouse and keyboard**</u>
Use a dominant hand and move the arrow to a destination with instruction (hand over hand)
Hold a mouse and move the arrow to a destination with some errors.
Hold a mouse and move the arrow confidently to a destination.
Create a drawing using a mouse
Click on applications/programs with support.
Double click on an application.
Find given keys related to letters/numbers
Press keys relating to letters and numbers with accuracy
Independently press keys relating to letters and numbers
Type name independently
Understand How technology Is used in future careers. Create ambition. | <u>**Computer Science**</u>
Follow 2 directional instructions verbally. (As a class, in pairs, independently)
Sequence 3 images around a familiar event in order (first, then, last). (As a class, in pairs, independently)
Name forward, back, left, right and go on a Beebot (with prompts and ind)

<u>**Applications**</u>
Identify basic apps and programs from images (tux paint, Maisie mouse skills) (As a class, independently)
Interacts with age-appropriate software
Develops digital literacy from engaging with a variety of software

<u>**Images/recordings**</u>
Find the camera app and take a picture.
Take a picture independently on a tablet when on the app.
Take pictures that link to a story
Create a video recording
Draw images on a screen | <u>**Online Safety**</u>
Know that information can be retrieved from digital devices and the internet
Find, with he help of an adult, online information that interests them
Identify dangers around computers (eg. Electricity, water, wires, running in ICT).
Sit on a chair in the ICT suit correctly.
Hold a tablet safely and respectfully.
Talk about the dangers of strangers.
Point to images of people they should tell if something scares them on technology (out of a choice of two)
Name people they should tell if something scares them on technology (out of a choice of two)

<u>**Equipment**</u>
Identify a mouse, monitor, tablet and keyboard from pictures.
Use the vocab mouse, monitor, tablet and keyboard when talking about computers. |

Ribbon Academy

	Guidance Areas	Autumn		Spring		Summer	
		Term 1	**Term 2**	**Term 1**	**Term 2**	**Term 1**	**Term 2**
Year 1	Topic/Focus	The Use of IT	Keyboard and Mouse Skills	Programming		Digital Art	Microsoft Word
	Key knowledge	**Technology-** Identify and define different digital devices inside and outside of school – tablet, TV, washing machine, toaster. **Understand-** digital devices come in all shapes and sizes. **Keyboard Functions-** letters, space bar and enter **Mouse-** left click	**Technology-** Identify and define different digital devices inside and outside of school. **Digital devices-** any device which uses electronics to function- hairdryer, alarm clock **Uses-** the way in which we use a device for a particular purpose and need at that time. i.e. a hairdryer – hot for adults, cooler for children. **Understand-** digital devices come in all shapes and sizes. **Keyboard and Mouse Functions -** letters, space bar, enter **and** left click only	**Algorithm –** A set of clear instructions in a certain order. **Programmable –** Can receive instructions. **Beebot –** Programmable robot **Directional language –** left, right, go, forward, backward **Objective-** the goal you want to achieve/ what you want to happen **Input –** Adding information into a computer. **Outcome –** The result **Command –** An instruction. **Debug-** correcting a mistake in an algorithm.		**Digital Art-** art created using computing **Tools-** a selection of items which change the way the art is created. i.e. pen, paint, brush **Pixels-** a minute area of illumination on a display screen, one of many from which an image is composed	**Power button –** Turns the power on and off. **Log on –** Getting on to your account/work. **Shutting down –** Getting off your account and turn off power. **Mouse –** Know the three different clicks. **Program Icons –** Need to know word, publisher, painting programs, camera, mouse skill games, keyboard games by icons.
	Key skills	**Turn** on a navigate a variety of devices **Log on** independently **Use** the mouse to left-click, select and drag **Find** letters on the keyboard and begin to type.	**Turn** on a navigate a variety of devices **Log on** independently **Use** the mouse to left-click, select and drag to play games. **Find** letters on the keyboard and begin to type with fluency.	**(Beebots)** **Create** an algorithm to get a Beebot from one place to another **Change** my algorithm to avoid obstacles **Debug** my algorithm **(The Foos)** **Solve** problems using algorithms and debugging **Recognise** errors and debug these in their algorithm		**(KidsDoodle (iPad) and pixilart.com (comps)** **Explore** digital drawings **Discuss** what I like, dislike and interesting features **Explore** digital drawings using KidsDoodle **Use** the tools on Pixilart.com to create a digital drawing	**Open** a Microsoft Word Blank Document **Type** my name onto a Microsoft Word Document **Save** my work **Add and resize** a clipart image **Insert and type** into a text box?
Year 2	Topic/Focus	Apple Clips	Programming		Apple Keynote/ PowerPoint	Data Handling	Animation
	Key knowledge	**Internet –** a system that lets you connect all over the world. **Device/app –** a thing which is made or adapted for a specific purpose. **Save-** a place which stores your work to return to it later. **Organise-** create a Clip which is in a logical order.	**Algorithm –** clear instructions in a certain order to complete a task or solve a problem. **Sequence –** The order in which something is done. **Scratch Jr –** visual algorithms (these include: character, verb, destination i.e. dog, walking, shrink, run, outer space) **Scratch Jr Language–** predict, Invisible, shrink, blocks, sprite, wait, show, hide, repeat forever, repeat, move, character, record, sound, background and sequence. **Outcome –** the result of the algorithm; the reason we created the algorithm.	**Block coding –** name of the parts in the algorithms used in Scratch Jr. **Outcome –** the result of the algorithm; the reason we created the algorithm. **Sprite –** Character on Scratch Jr that can be coded. Online version of a beebot **Command –** An instruction given to a computer. **Debug –** Finding a mistake in an algorithm or making it better/faster. **Sequence –** The order in which something is done. **Turns-** full turn, half turn, quarter turn	**Slideshow –** a presentation made up of slides viewed in a sequence. **Text box –** a box that contains writing. **Background –** the colour or pattern on the slide or page. **Presentation –** another word for a slideshow. Design and create digital content to convey information.	**Key –** represent letters, numbers, functions and symbols. **Power button –** Turns the power on and off. **Log on –** Getting on to your account/work. **Shutting down –** Getting off your account and turn off power. **Mouse –** Know the three different clicks. **Programs –** Need to know word, publisher, painting programs, camera, mouse skill games, keyboard games by icons.	**Animation-** the creation of multiple slides with a tiny amount of movement, which together looks like a video of movement **Frames-** each image taken **Storyboard-** the planning out of your animation **Movement-** the tiny amount of movement between each frame

	Guidance Areas	Autumn		Spring		Summer	
		Term 1	**Term 2**	**Term 1**	**Term 2**	**Term 1**	**Term 2**
Year 3	**Key skills**	**Add and record** video to 'Clips' **Add** posters and simple effects **Sequence** my video **Edit** a previously recorded 'Clips'	**(Scratch)** **Create, follow and improve** an algorithm **Move** a character **Edit** an algorithm for precision **Avoid** obstacles **Debug** my algorithm	**(Scratch)** **Continued from Spring2** **Create, follow and improve** an algorithm **Move** a character **edit** my algorithm for precision **Avoid** obstacles **Debug** my algorithm	**Present** my learning on KN and PP **Add** slides to my presentation **Add** appropriate animations **Add** content using pictures and text. **Change** the background on my presentation	**Answer** questions about a pictogram **Collect** data for a pictogram **Label** a pictogram and add data to each column **Edit** a table to create a bar chart and a pie chart **Ask and answer** questions about graphs that I have created **Match** common symbols to basic definitions. (cross, save, windows symbol, word, print) **Find** a specific program independently	**Study and comment** upon animations **Experiment** with the Junior Infant Animation Tool and share my successes and difficulties **Plan** my own animation **Create** my own animation **Evaluate** my project
	Topic/Focus	**Apple Pages/ Microsoft Word**	**Programming**		**Apple Keynote/ PowerPoint**	**Stop-Motion Animation**	
	Key knowledge	**Spell check –** A tool for checking spelling. **Format –** to change the way an item looks. **Font** – the style of writing, colour **Copy –** A tool which copies but does not delete an item. **(Select, Right Click, Copy)** **Paste –** A tool which places a copied or cut item. **(Right Click, Paste)**	**Program –** This is the purpose of the activity. **Block knowledge –** Flag, stop, motion, events, control, looks, sound. **Sprite –** The character. **Backdrop –** The background of the stage. **Script –** The sequence of the blocks. **Costumes –** The look of the sprite at a given time. **Repeat Function-** a way of block repeating instructions previously set **Turns-** full turn, half turn, quarter turn, clockwise, anti-clockwise		**Spell check –** A tool for checking spelling. **Text box –** a box that contains writing. **Format –** to change the way an item looks. **Font** – the style of writing. **Presentation –** another word for a slideshow. **Copy –** A tool which copies but does not delete an item. **(Ctrl – Alt – C)** **Paste –** A tool which places a copied or cut item. **(Ctrl – Alt – V)**	**Stop motion Animation-** the creation of multiple slides with a tiny amount of movement, which together looks like a video of movement **Frames-** each image taken **Storyboard-** the planning out of your animation **Movement-** the tiny amount of movement between each frame **Onion skin-** in 2D computer graphics, is a technique used in creating animated cartoons and editing movies to see several frames at once. **Export-** To save a copy of the current open document, database, image or video into a file format required by a different application **iMovie-** a video editing application developed by Apple Inc.	
	Key skills	**Add, edit and format** text **Add and edit** an image **Copy and paste** text and images **Save** my work **Retrieve** my work	**(Scratch)** **Decompose** an algorithm **Write** a program including text, wait and movement **Use** the repeat function **Write** programs using different inputs		**Add** in a new slide **Add,** edit and format text **Copy and paste** text and images. **Add** an image and edit it inside a document **Change** the background of the presentation **Save** my work **Retrieve** my work	**Study and comment** upon animations, focussing on the use of onion skin **Use** Stop Frame Animator to create my own animation **Create** my own Lego animation **Compare** the Lego Movie app and the Stop Frame Animator **Use** a storyboard to plan an animation **Choose** from Stop Motion Animation or StikBot to create my own animation **Export** my animation into iMovie **Add** a title and sound to my animation video	

Computing
Knowledge and Skills Progression Overview

	Guidance Areas	Autumn		Spring		Summer	
		Term 1	Term 2	Term 1	Term 2	Term 1	Term 2
Year 4	Topic/Focus	Apple Pages/ Microsoft Word	Programming		Apple Keynote (with Internet Res) / PowerPoint	Data Handling	Garage Band
	Key knowledge	**Bold -** Slightly thinker font in the same style. **Italics –** Words typed are on a slight angle. **Alignment –** where the text is placed. (Left, Right, Center, Justify) **Text box Function** (I.e. Insert – Text Box – Draw Text Box/ Simple text box)	**Decomposing –** Know that algorithms can be broken down into smaller parts to solve a problem. **Loop –** A piece of program that repeats for a given amount of time. **Conditional –** are used to decide the flow of the algorithm. (E.g. when I click) **X and Y axis –** position on the backdrop **Turns-** as Year 3 plus 45, 90, 180, 360 degrees to be used		**Bold -** Slightly thinker font in the same style. **Italics –** Words typed are on a slight angle. **Alignment –** where the text is placed. (Left, Right, Center, Justify) **Transitions –** The movement from one slide to another. **Animations –** The movement of items on a slideshow (e.g. a floating title)	**Cell –** an individual box on excel. **Spreadsheet –** the name of a page in excel. **Data -** text or numbers entered into a cell. **Formula –** a mathematical statement that the computer will work out using information in the cells.	**Digital music-** music made online using different tones and pre recorded tracks **Loops-** a repetition of the digital music **Tracks-** a completed piece of digital music which is saved and utilised **Compose-** Put together the tones and music clips to create digital music
	Key skills	**Type** an extended piece of work including paragraph, alignment, title, text box and an image **Format** typed work to change the font colour, underline, bold and italics. **Use** the spell check tool for all words in a text. **Save** my work **Retrieve** my work	**(Scratch)** **Take** screenshots and add to Keynote **Use** sprites and background tools to create a scene? **Use** an 'if' statement in my algorithm **Use** a repeat loop **Add** additional characters and make them move **Experiment** with conditionals **Use** a repeat loop multiple-times **Include** a conditional		**Use** reliable internet research **Add** in a new slide, start and end a slideshow. **Add**, edit and format text **Copy and paste** text and images **Add** an image and edit it inside a document **Change** the background of the presentation **Add** transitions and animations to 5 slides **Save** my work **Retrieve** my work	**Ask and answer** questions about spreadsheets **Use** given data to create a spreadsheet **Add** formulas to add totals **Gather and present** data in a spreadsheet **Use** data to create a graph **Copy and paste** the graph onto another programme or spreadsheet	**Understand** and create digital music **Use** live loops in GarageBand **Create** tracks in GarageBand **Write** an advert for Ribbon Radio **Create** an advert for Ribbon Radio
Year 5	Topic/Focus	Apple Pages vs. Microsoft Word	Programming		Apple Keynote (App Design) / PowerPoint	Video Editing	Video Editing & combined apps
	Key knowledge	**Thesaurus –** A tool which gives suggestions of other words that mean the same. **Cut -** A tool which moves an item from one place to another. **(Select, Right Click, Cut) (Ctrl – Alt – X) Resize –** changing the size of an item. (The role of holding shift for equal sizing) **Crop –** making an image smaller by removing some parts of it.	**Loop-** A piece of program that repeats for a given amount of time. **Data variables-** something that can be changed such as text or numbers. **Conditions-** are used to decide the flow of the algorithm **Sensing-** can sense movement **Python –** One of many computer languages. **Decomposing –** Know that algorithms can be broken down into smaller parts to solve a problem.		**Timings –** Set length of a slideshow or individual slide. **Navigate –** A way to move around on the computer. **Hyperlink –** a shortcut to another page/slide/website.	**Green screen-** software that allows the placement of any image onto the green screen's interchangeable background **Autocue-** a device which projects an enlarged image of a script for use by the presenter/reader **Content-** the make-up of the animation **Edit-** change something created to better suit the outcome and improve it.	

	Guidance Areas	Autumn		Spring		Summer	
		Term 1	**Term 2**	**Term 1**	**Term 2**	**Term 1**	**Term 2**
Year 6	**Key skills**	**Type** an extended piece of work including paragraph, alignment, title, text box, an image and subheading **Format** typed work to change the font colour, underline, bold and italics. **Crop** an image **Add** a border **Use** the spell check tool and begin to use the thesaurus **Cut and paste** with instruction.	**(Scratch)** **Take** screenshots and add to Keynote **Decompose** a Scratch game into smaller parts **Define**, create and debug a series of algorithms **Program** inputs **Program** conditionals **Identify** the incorrect inputs in a 30 part algorithm using Scratch **Experiment** with sensing and variables **Add** multiple conditions and sensing for interaction **Add** data variables for scoring and a game timer		**Adjust** slide size to mimic a phone or tablet. **Add** text and images to a slide. **Add** icons and text to use as navigation. **Create** hyperlinks to have navigation. **Duplicate** slides to create multiple pages of the app.	**Experiment** with green screen by changing the background to my picture **Work** in a group to plan a video **Create** an autocue script on Apple Pages **Work** in a group to record content for my video (including green screen)	**Add** a video to iMovie and add backgrounds, text, music and transitions **Present** my work and provide feedback to others
	Topic/Focus	Apple Pages vs. Micro Word	Programming		Keynote vs. PowerPoint	Website Design	Website Design & combined apps
	Key knowledge	**Bullet points –** a tool which allows you to add in bullet points. **Subheading –** a smaller title. **Table –** a tool which allows you to add in a table with cells, rows and columns. **Smart art –** editable pictures which allow you to present work. **Navigate –** A way to move around on the computer.	**Application of previous knowledge through new program.** **Loop-** A piece of program that repeats for a given amount of time. **Data variables-** something that can be changed such as text or numbers. **Conditions-** are used to decide the flow of the algorithm **Sensing-** can sense movement **Python –** One of many computer languages. **Decomposing –** Know that algorithms can be broken down into smaller parts to solve a problem.		**Bullet points –** a tool which allows you to add in bullet points. **Subheading –** a smaller title. **Table –** a tool which allows you to add in a table with cells, rows and columns. **Smart art –** editable pictures which allow you to present work. **Hyperlink –** a shortcut to another page/slide/website. **Navigate –** A way to move around on the computer.	**Word wide web –** a directory of websites that can be accessed using a browser. **Website-** a set of related web pages located under a single domain name **Hyperlink –** a shortcut to another page/slide/website. **Navigate –** A way to move around on the computer. **Buttons-** are used on forms, website homepages, dialog boxes, and toolbars. Buttons are used when you want a user to act (submit, cancel, delete) **It is important to differentiate between buttons and links.** **Links-** are used to direct users to other pages (about me, read more)	
	Key skills	**Type** an extended piece of work including paragraph, alignment, title, text box, an image, subheading, bullet points and a table. **Format** typed work to change the font colour, underline, bold and italics. **Use** the spell check tool and continue to use the thesaurus. **Cut and paste** to change the order.	**Swift Playgrounds (iPad app)** **Define, create and debug** a series of algorithms **Decompose** a game into smaller parts **Program accurately** inputs, conditions and sensing for interaction, data variables for scoring and a game timer		**Edit, crop and add** images together **Create** a headline to accompany a created image **Add** a border, images, shapes and text to both a KN and PP **Format** my document appropriately **Amend** tables by inserting/deleting columns, rows and cells. **Add** transitions and animations **Create** hyperlinks to support navigation. **Evaluate** software by debating strengths and weaknesses	**Study** features of different websites and evaluate them **Add** and format text within a website **Organise** sections and pages **Add and edit** images **Create** videos to add onto my website **Include** features such as hyperlinks, buttons and files **Evaluate** my work and provide feedback for others	