Computing, IT and Business Learning Map

Year	Autumn		Spring		Summer	
Nursery	**Computing is interwoven into the different learning areas in EYFS.**					
Reception	**Computing is interwoven into the different learning areas in EYFS.**					
	https://www.ilearn2.co.uk/early-years-curriculum.html					
Year 1	**Basic Skills** To login with different devices using my school login (computer, laptops and tablets), To be able access the internet. **Online Safety** To know when to take breaks from device time, To be respectful of people while using devices, To learn how to Stay safe online,	**Mouse and Keyboard** Mouse and keyboard skills; move mouse, left/right click, drag and drop. Typing; Find letters on keyboard and begin touch typing with home row keys.	**Coding and Programming** **Beebots** – children create an algorithm to move the Beebot to the correct place. Understand sequence and algorithms. Sequence instructions (commands) to achieve an objective. Use distances in commands. Predict, write, execute and debug a simple program.	**Text and Images** Add, move and resize images. Add text and adjust size and placement. Add, resize and place images on a page then add and position text to label and describe images. Use word banks to write sentences about images.	**Comic Creation** Add, resize and organise colour or picture backgrounds Add, resize, organise characters/objects to different panels. Add narration using text and direct speech using speech bubbles	**Digital Art** Change the colour of individual pixels to accurately re-create basic artwork. Make changes where required. Change the colour of individual pixels to accurately re-create detailed artwork.
	https://www.ilearn2.co.uk/planningks1.html					
Year 2	**Basic Skills** To login with different devices using my school login (computer, laptops and tablets), To be able access and use school websites like seesaw, TT Rockstars and Myon **Online Safety** To understand the importance of being safe, responsible and respectful online, To recognise the different kinds of feelings they can have when using technology. To identify websites or apps that are right for them.	**Typing** Using a computer keyboard, Use correct hand position and fingers for touch typing, Develop touch typing skills, **Recognise uses of IT** Recognise common uses of information technology beyond school; Understand computers store and follow instructions. Spot digital technology in school or at home. Find a piece of computer equipment amongst day to day objects and choose the correct	**Develop Programming** **Beebots –** children design and create a maze, create an algorithm to move the beebot through the maze. Create and debug simple programs by selecting code blocks, placing them in the correct sequence and executing a program. Use logical reasoning to predict the behaviour of simple programs. Simplify a program by using a loop.	**Ebook** Add a book cover with title, author, colour and image. Add multiple pages based on a theme. Add text on different pages. Add images on different pages to match the theme/text, Add voice recordings to match the text and theme.	**Data handling and research** Understand what data is and collect it as a tally. Use software to label a pictogram and add data to each column. Edit a table with correct titles and numbers. Use software to create a bar chart/pie chart/line chart suitable for the data. Interpret a pictogram/bar chart/line chart.	**Animation** Add a background and objects to a frame (including text) Copy/clone a frame and move objects to create an animation, including flipping objects. Create an animation with multiple objects moving simultaneously.

		definition. Understand how different technology helps us.				
	https://www.ilearn2.co.uk/planningks1.html					
Year 3	**Online Safety** To understand how to be a good digital citizen, To recognise ways in which devices can be distracting, To identify what kind of information I should keep private on the internet, To learn about our digital footprints, To understand how people can connect on the internet, To understand what online meanness can look like,	**Programming in Scratch** Sphero – Design a robot and code using Sphero play app. Design, write and debug programs that accomplish specific goals. (Including outputs) Use repetition in programs. Work with various form of inputs; keyboard, mouse and touch screen. Write programs that simulate physical systems.	**Kodu Game Design** Create a 3D place using various design tools, Write a program to control a character using inputs, Write a program with conditions to create an if statement, Write a program with variables,	**Story Board** Add and edit backgrounds. Add and edit characters, including changing posture, expression and clothing. Add narration and speech bubbles, including formatting text. Duplicate objects to match scenes. As Search for objects to use.	**Documents Edit** Copy and paste text and images Find and replace words Format text for a purpose Edit images inside documents Add bullet points to make lists Experiment with keyboard shortcuts	**Digital Art** Use various lines and fill tools plus copy/paste and rotation to create pattern effects. Use shapes, fill, copy/paste, zoom and flip to create reflective symmetry effects. Use stamps, copy/paste, layers and multiple frames to create animated GIF computer graphics.
	https://www.ilearn2.co.uk/year3.html					
Year 4	**Online Safety** To understand what I am responsible for online, To create strong and memorable passwords, To understand how what I post online can affect me, To define what an online community is, To know what to do if someone uses hurtful language online, To recognise that photos and videos can be digitally altered,	**Programming in Scratch** **Sphero –** Create an algorithm to guide the robot through a maze using Sphero play app. Use sequence, selection, and repetition in programs. Work with variables and various forms of input and output. Debug programs that accomplish goals. (correcting errors) Work with variables and conditions.	**Internet research** Appreciate how search results are selected and ranked and show awareness of different straggles for finding specific information, Understand the features of an Internet Browser Use search technologies (different websites) to find specific pieces of information, Reference the correct source of information, Be discerning in evaluating digital content, Check the internet for fake news by cross-referencing facts,	**Ebook Creation** Add page colour and style, Add, position and format text on different pages, Add and position images from camera/web, Add audio, including hiding it behind an object, Add hyperlinks to text and images Add and format shapes, Use hyperlinks for navigation, Add audio to pages,	Data handling Change appearance of cells in a spreadsheet (fill colour and border) then add and align text. Find and add data to a spreadsheet, resize cells and use the software to create a suitable chart with a title.	Animation Create a stop-motion video by duplicating slides that include backgrounds and shapes. Create animation using transition and animation effects (morph, motion paths, pulse etc), including taking and editing a screenshot. Animate individual elements of objects. Create animated GIF files by animating pixels.
	https://www.ilearn2.co.uk/year4.html					
Year 5	**Online Safety** To make healthy media choices, To know what information is okay to share. To know how online activity affects my digital footprint, To know how to be positive while playing online games, To recognise cyber bullying,	**Programming in Scratch** Program list variables that chooses randomly. Program inputs, conditions and sensing for interaction, data variables for scoring and a game timer. Program Inputs, outputs, loops, conditions, sensing and variables.	**Programming with Sphero** Understanding Bluetooth Technology as Input Device, Write programs for the Sphero using movement and repetition (loops), Write a program to trace a maze/route with Sphero and De-bug, Write a program with outputs,	**Ebook Quiz Creation** Add page colour and style, Add, position and format text on different pages, Add and position images, Add audio, including hiding it behind an object, Add hyperlinks to text and images, Search for shapes	**Data handling** Select and use non-adjacent cells plus resize multiple cell widths and copy/paste cells, Find data and create a spreadsheet to suit it, Use formulae to find totals, averages and maximum/minimum numbers, Search a database for specific information,	**App design** Use the tools in presentation software (PowerPoint) to design an app about your school, *Slide size and background colour* *Text and Images (including transparent images) on different pages*

	To describe their responsibilities as digital creators,		Write a program with random variables,	Lock and arrange shapes (extension task),		*Use Icons* *Interactions using hyperlinks*
	https://www.ilearn2.co.uk/year5preview.html					
Year 6	**Online Safety** To understand media balance, To know how to avoid click bait, To know how gender stereotypes shape our online experience, To understand how to keep online friendships safe, To identify and stop cyber bullying, To identify the important parts of an online news article,	**Programming in Scratch** **Sphero –** play a game of football and create an algorithm to score a goal using the Sphero Edu app. Program inputs, conditions, random variables for unpredictability, game timer. Program inputs, conditions, sensing, random variables, operators for direction and data variables for scoring. Use inputs, conditions, loops, sensing, costume changes and broadcasts. Work with multiple sprites to send broadcast messages between them.	**Create a VR Environment** What virtual reality is and how it can be used to help people. Add, move and resize objects in a virtual reality environment Animate objects for realism. Use code blocks to add movement (with grouping) and interactions (conditions). Create multiple scenes of VR environments	**Web Design** Use and combine a variety of software (including internet services) to design and create content that accomplishes given goals. Add and format text within a website. Organise sections and pages. Add and edit images. Include other features such as hyperlinks, buttons and files. Evaluate other websites and provide constructive feedback. Make necessary changes to the website based on feedback.	**Computers: Past, Present and Future** Design and create digital content to accomplish goals, Use search technologies effectively and be discerning in evaluating digital content, Understand how technology has changed over time and represent it as an interactive timeline, Understand the impact (positive/negative) technological changes have on society, Predict how technology will change in the future.	**Editing an Image** Take and crop a screenshot and learn about ratios? Adjust the colours, brightness, contrast and filters, Add drawing and text layers, Import new images as layers and resize/add effects, Save finished image to use in other projects.
	https://www.ilearn2.co.uk/year6preview.html					

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	**E- Safety & Multi Media**	**Spreadsheet Modelling**	**Games Design**	**Games Design**	**Web Design**	**Web Design**
	Students will develop their understanding of staying safe online and in the digital world. They will produce a multimedia presentation to consolidate their learning.	Students will develop their modelling skills using Microsoft Excel. The students will create a variety of spreadsheets that incorporate formulas, functions and IF Statements. Students will use charts to display their findings and will develop an understanding of how spread sheets can be used.	An introduction to Game Maker basic programming software where students design a game. Students will be expected to plan, create and evaluate a maze game of their choosing using the comic strip from the previous unit.	**An introduction to Game Maker basic programming software where students design a game. Students will be expected to plan, create and evaluate a maze game of their choosing using the comic strip from the previous unit.**	Students will develop their skills in Web Design Software	
Year 8	**E Safety**	**Representation of Data**	**Database**	**Games Design**	**Web Design**	**Web Design**
	Students will build upon their learning from year 7, covering topics including Cyber bullying, social media and the ways in which apps / devices should be used sensibly. They will complete a paper-based assessment at the end of the unit to show their understanding of the topic.	Students will have an introduction to data handling software (MS Access). Students will learn to sort, search and present findings from a large data set and understand how this may be used in a real life setting.	Students will have an introduction to data handling software (MS Access). Students will learn to sort, search and present findings from a large data set and understand how this may be used in a real life setting.	An introduction to Game Maker basic programming software where students design a game. Students will be expected to plan, create and evaluate a maze game of their choosing using the comic strip from the previous unit.	Students will develop their skills in Web Design Software	
Year 9	**E- Safety & Multi Media**	**Creating interactive multimedia products about E-Safety**	**Developing Digital Graphics**	**Developing Digital Graphics**	**Pre-Production Documents**	**Pre-Production Documents**
	Use of online technology and office 365 and email. Creating interactive multimedia products about E-Safety • plan an interactive multimedia product	Use of online technology and office 365 and email. Creating interactive multimedia products about E-Safety • plan an interactive multimedia product	Students will learn how to edit and manipulate digital graphics. • File Formats • Compression • Legislation	Students will learn how to edit and manipulate digital graphics. • File Formats • Compression • Legislation	Understand the purpose, content and uses of different pre-production documents, purpose, where are they used and content. • Computer Systems • Hardware & Software • Pre-Production documents	

	• create an interactive multimedia product	• create an interactive multimedia product				
Year 10	**RO81 planning the product of media products. (Exam Preparation). Computing RO87 Creating interactive multimedia products**	**RO81 planning the product of media products. (Exam Preparation). Computing RO87 Creating interactive multimedia products**	**Computing RO87 Creating interactive multimedia products (Coursework) LO1 & LO2**	**Computing RO87 Creating interactive multimedia products (Coursework) LO1 & LO2**	**Computing RO87 Creating interactive multimedia products (Coursework) LO3 & LO4**	**Computing RO87 Creating interactive multimedia products (Coursework) LO3 & LO4**
	RO81 • Knowledge of preproduction concepts, techniques, research, legislation and planning considerations.• Skills in creating and reviewing the different types of pre-production documents • Understanding pre-production concepts by applying knowledge to specific scenarios RO87 Creating interactive multimedia products LO1 Understand the uses and properties of interactive multimedia product LO2 Be able to plan an interactive multimedia product	RO81 planning the product of media products. (Exam Preparation) • Knowledge of preproduction concepts, techniques, research, legislation and planning considerations. • Skills in creating and reviewing the different types of pre-production documents • Understanding pre-production concepts by applying knowledge to specific scenarios Computing RO87 Creating interactive multimedia products LO3 Be able to create an interactive multimedia product LO4 Be able to review an interactive multimedia product	LO1 Understand the uses and properties of interactive multimedia product LO2 Be able to plan an interactive multimedia product	LO1 Understand the uses and properties of interactive multimedia product LO2 Be able to plan an interactive multimedia product	LO1 Understand the uses and properties of interactive multimedia product LO2 Be able to plan an interactive multimedia product	LO1 Understand the uses and properties of interactive multimedia product LO2 Be able to plan an interactive multimedia product
Year 11	**RO81 planning the product of media products. (Exam Preparation). Computing RO87 Creating interactive multimedia products** RO81 • Knowledge of preproduction concepts, techniques, research, legislation and planning considerations.• Skills in creating and reviewing the different types of pre-production documents • Understanding pre-production concepts by applying knowledge to specific scenarios RO87 Creating interactive multimedia products LO1 Understand the uses and properties of interactive multimedia product LO2 Be able to plan an interactive multimedia product	**RO81 planning the product of media products. (Exam Preparation). Computing RO87 Creating interactive multimedia products** RO81 planning the product of media products. (Exam Preparation) • Knowledge of preproduction concepts, techniques, research, legislation and planning considerations. • Skills in creating and reviewing the different types of pre-production documents • Understanding pre-production concepts by applying knowledge to specific scenarios Computing RO87 Creating interactive multimedia products LO3 Be able to create an interactive multimedia product LO4 Be able to review an interactive multimedia product	**Computing RO81 Exam . RO81 planning the product of media products. (Exam Preparation). Re-Sit Preparation** RO81 planning the product of media products. (Exam Preparation) • Knowledge of preproduction concepts, techniques, research, legislation and planning considerations. • Skills in creating and reviewing the different types of pre-production documents • Understanding pre-production concepts by applying knowledge to specific scenarios	RO81 planning the product of media products. (Exam Preparation) • Knowledge of preproduction concepts, techniques, research, legislation and planning considerations. • Skills in creating and reviewing the different types of pre-production documents • Understanding pre-production concepts by applying knowledge to specific scenarios	RO81 planning the product of media products. (Exam Preparation) • Knowledge of preproduction concepts, techniques, research, legislation and planning considerations. • Skills in creating and reviewing the different types of pre-production documents • Understanding pre-production concepts by applying knowledge to specific scenarios **Computing R081 Exam**	