

Curriculum Overview ICT

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					<b>U.O: E- Safety and Suite introduction</b>	<b>U.O: Using technology efficiently – TUX Paint</b>
Reception					L.I: To know that some devices are touch screen and others require additional units (e.g. a mouse, a keyboard, Wiimote, handsets)	L.I: TBAT log into a computer suite and locate a given program.
					L.I To know that different devices have different types of security (e.g. lock screens on I-phones, unlock keys, passwords, fingerprint recognition)	L.I: TBAT open a program and navigate the icons/ menu.
					L.I: To know why the security looked at last week is important and that is why we will use passwords in the ICT Suite. Introduce children to the suite and keyboards.	L.I: TBAT use a program to create and save a picture (with assistance)
					L.I: TBAT log into a computer in the ICT suite with assistance.	L.I:TBAT use a program to open and edit a picture (with assistance)
					L.I: TBAT log into a computer in the ICT suite independently.	L.I: TBAT print my work
					L.I: TBAT log into a computer in the suite and locate a given program on the desktop.	L.I: TBAT evaluate my printed work (smiley face to show if they are happy with it?)

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<b>U.O: How computers work</b> <b>2 Paint a Picture</b>	<b>U.O: Programming, Coding and Control</b> <b>Bee Bot (I-Pad)</b>	<b>U.O: Using technology effectively</b> <b>Internet and 2Graph</b>	<b>U.O: How computers work</b> <b>2 Type/ 2 Paint a Picture</b>	<b>U.O: Using Technology Effectively</b> <b>Book Creator ( I-pad)</b>	<b>U.O: Programming, Coding and Control</b> <b>J2 Code (LGFL site)</b>
Year 1		L.I: To know that games on a computer react to a series of instructions given by the user and that these can come from a variety of inputs (voice, keyboard, mouse touchscreen etc)	L.I 1: E-safety review using the internet effectively. L.I2: TBAT understand how Google Earth is created and locate the United Kingdom.	L.I: TBAT recognise different functions on a standard keyboard	L.I: To know that books can be presented in many forms (e.g. Kindle's, I-Books, Paper backs, tapes/CD's)	L.I: TBAT know an algorithm is a set of instructions and that instructions must be precise and accurate
	L.I: TBAT identify components of a computer using technical vocabulary.	L.I: To know that a program can be written and re written if a mistake is made and that this process is called 'debugging'. Demonstrate a failed instruction on Bee Bot app- identify flashing x symbolises this.	L.I: To use Google Earth to collect data about where in the UK children have been.	L.I: TBAT complete 2Type tasks using correct finger placement and MA to use punctuation/ shift/ caps lock	L.I: To know that when presented in a technical form a story can have sounds, moving pictures, texts that change colour as your read etc.	L.I: TBAT write a simple algorithm to move a rocket to the planet.
	L.I: TBAT log in and navigate the school desktop to locate a given program and open a new document.	L.I: TBAT program a Bee Bot to reach the flower in the least number of steps (stage 1)	L.I: To know that computers can be used to display given data in a variety of ways. Introduce 2Graph interface.	L.I: TBAT complete 2Type tasks showing increasing accuracy on the keyboard.	L.I:TBAT plan pictures and text for a story and save these ( this could be taking photographs with the I-pad of real things or off the children's pictures)	L.I: TBAT write and debug an algorithm in advanced mode.
	L.I: TBAT find given program open a document and navigate controls (brush size, colour etc)	L.I: TBAT program a Bee Bot to reach the flower in the least number of steps (stage reached dependent on ability).	L.I: TBAT input data into 2Simple and save this information. (Using correct cell, value vocabulary)	L.I: TBAT use 2Paint a Picture repeat tool to create a repeated pattern design (save and print).	L.I: TBAT open a new story within the App, follow the tutorial and create a title page. (Save this to the I-pad)	L.I: To understand how block coding works and debug.
	L.I: TBAT create a picture in 2Simple and save it to their own drive.	L.I: To recognise that the program is an input and the movement of the Bee Bot is an output. To identify what makes the higher levels more difficult.	L.I: TBAT create a graph using data input last week and label correctly.	L.I: To explore other tools within 2Paint a Picture and evaluate their possible uses in real life.	L.I TBAT open a story and continue with their story (ensure children are using the same I-pad as last week)	L.I: TBAT program an algorithm to move the rocket around the screen.
	L.I: TBAT open a saved document and print it.	L.I: TBAT print screen the highest level achieved and evaluate what they have learnt.	L.I: TBAT print their graph and reflect on how effectively it displays the data collected. Link to real life contexts.	L.I: To complete a task online. ( BBC Science- Growing, labelling parts of a plant).	L.I: TBAT complete project and print for their folder. Evaluate their story.	L.I: TBAT print off their algorithm and evaluate effectiveness.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<b>U.O: Using Technology Effectively</b> <b>2Type/ Word</b>	<b>U.O: How Computers work</b> <b>Internet</b>	<b>U.O: Using Technology Effectively</b> <b>Book Creator (IPad)</b>	<b>U.O: Programming, Coding and Control</b> <b>Daisy the Dinosaur(Ipad)</b>	<b>U.O: Using Technology Effectively</b> <b>JIT5 (LGFL Infant toolkit)</b>	<b>U.O: Programming, Coding and Control</b> <b>J2 Code (LGFLtoolkit)</b>
Year 2	L.I: TBAT independently log in and locate 2Type program. Correct positioning of fingers on the keys using program to help.	L.I: TBAT understand which sources are and are not reliable e.g. Wikipedia	L.I:TBAT know that technology can present information in a variety of ways (e.g. moving images, text, audio, games etc)	L.I: To make links between programming and interactive games children have played before.	L.I: To understand why filtering is used to access certain websites, to learn how to access LGFL portal using own log ins.	L.I: TBAT to explore programming using directions on BeeBots or ProBots.
	L.I: TBAT use 2Type to improve typing technique and speed.	L.I: TBAT know how sources online are ranked by search engines.	L.I:TBAT evaluate own use of the program last year and identify ways to improve.	L.I: TBAT understand the vocabulary of programming/ coding and the need for an instruction to be precise	L.I: TBAT use knowledge learnt of algorithms to write instructions for how to grow a plant.	L.I:TBAT expand understanding of bock coding from last year.
	L.I: To know that Word will allow us to use our typing skills to create a document and explore the interface.	L.I: TBAT use the internet to research significant individuals from the past.	L.I: TBAT plan a topic for book and identify pictures, sounds, and texts that will be necessary. Use IPads to take pictures.	L.I:TBAT locate and open App using Challenge Mode. To understand the interface used in the App.	L.I: TBAT access JIT5 software via LGFL website and explore talk facility.	L.I: TBAT create a simple algorithm and add a condition.
	L.I: TBAT change styles and sizes of fonts to create an effect.	TBAT understand why there are adverts on the internet and who benefits from these (introduce Cookies).	LI: TBAT use Book Creator app to design front cover and opening pages of story inserting appropriate pictures, text, emojis and sound.	L.I: TBAT develop skills within the Challenge Mode and understand the need to debug and improve instructions when these are not accurate.	L.I: TBAT find and insert pictures into JIT5 software.	L.I:TBAT use coordinates to correctly place a sprite
	L.I: TBAT use the shift key to insert punctuation and change letter case.	L.I: TBAT understand the importance of staying safe online.	L.I: TBAT complete book using Book Creator and print/ save.	L.I: TBAT progress within the App and print screen the highest level reached.	L.I: TBAT use JIT5 software to create instructions for how to grow a tomato.	L.I: To use Logo to write a simple program to draw a shape.
	L.I: TBAT create a document using skills used this term, to save and print document.	L.I:TBAT effectively share knowledge of how the internet work and how to stay safe.	L.I: PEER ASSESSMENT Children to explore each other's creations and evaluate effectiveness of features included.	L.I:TBAT identify skills learnt about writing an algorithm.	L.I: Children to explore other forms on online/ audio instructions. What makes each effective?	L.I: To print and evaluate program outcome.

Year 3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<b>U.O: How Computers Work</b> <b>E-mailing</b>	<b>U.O: Use Technology effectively</b> <b>2Investigate</b>	<b>U.O: Programming, coding and control</b> <b>Flowol 4</b>	<b>U.O: Programming, coding and control</b> <b>Wedo Lego- Roaring Lion</b>	<b>U.O: How Computers Work</b> <b>(IPad- Book Creator)</b>	<b>U.O: Using Technology Effectively</b> <b>MovieMaker/ ComicLife (IPad)</b>
	2 Type L.I. TBAT lay fingers correctly on the keyboard and increase accuracy.	L.I: TBAT collect data linked to clown investigation.	L.I: To be aware of programming vocabulary and what it means (e.g. input, output, mimic, algorithm)	L.I: TBAT identify similarities between this unit and Flowol, both programming just a live output rather than on screen. Revisit vocabulary and allocate roles within groups.	L.I: To plan story they will be creating next half term. To understand that media can be uploaded from a variety of media.	L.I: TBAT open program and explore interface.
	2 Type L.I.TBAT increase accuracy and speed including the shift key to create capital letters	L.I: To know how to open 2investigate program and understand vocabulary used within it.	L.I: TBAT use simple algorithm to program zebra crossing lights to turn on and off, experiment with delays.	L.I: TBAT open the Lego software on laptops and identify model to be built and pieces required.	L.I: To find pictures on the internet, copy and paste into document and save straight to drive.	L.I: TBAT upload photos from last half term into the template.
	L.I: To understand how e-mailing operates and the importance of spam filters and selecting who you share your e-mail address with- never your password! L.I: TBAT log into school email account and navigate the mailboxes, can they see where they would filter mail? To recognise icons for attachments etc	L.I: TBAT to choose use clown pictures to create cards and identify features to be used.	L.I: TBAT understand that one mimic can have more than one output and input. Explore Robot mimic picture.	L.I: TBAT follow instructions to create Lego Model.	L.I: TBAT to use iPads to take photos/ videos and to be able to retrieve and edit these.	L.I: TBAT add text and sound to program to enhance effect.
	L.I: To be aware of the variety of e-mail providers and how this might affect the appearance of the interface but the function is the same.	L.I: TBAT sort and select clowns using 2investigate program.	L.I: TBAT program Robot mimic using separate Flowol algorithms for different outputs.	L.I: To be able to create a simple algorithm to make lion move.	L.I: TBAT take, upload and save photos to their own drive.	L.I: To add motions and transition to create a more effective product for the viewer.
	L.I: TBAT draft and send e-mail to Santa using correct vocabulary and text editing tools. (Understand that e-mails are traceable and permanent)	L.I: TBAT create graphs using information on clown cards.	L.I: TBAT debug and improve programming from last week.	L.I: TBAT make a more complex algorithm of their own including sound.	L.I: To retrieve uploaded photos and edit to improve effectiveness	L.I: Review and improve presentations, share as a class.
	L.I: To open e-mail responses from Santa and print these out. L.I: TBAT assess effectiveness of e-mailing skills.	L.I: To identify when databases such as these are used in real life.	L.I: TBAT print screen and evaluate programming.	L.I: To evaluate effectiveness of group work and programming.	L.I: TBAT insert saved photos effectively and create borders and text overlays.	L.I: Print and evaluate presentation .

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<b>U.O: How Computers Work</b> <b>E-Safety</b>	<b>U.O: Programming, Coding and Control</b> <b>WeDo- Hungry Crocodile</b>	<b>U.O: Using Technology Effectively</b> <b>2Create</b>	<b>U.O: Programming, Coding and Control</b> <b>Alex the Robot (IPad)</b>	<b>U.O: How Computers Work</b> <b>Picassa - Photo editing</b>	<b>U.O: Using Technology Effectively</b> <b>J2 Vote (LGFL site)</b>
Year 4	LI TBAT follow rules about E Safety: How can we be safe online? Privacy of photos.	LI TBAT use programming,, coding and control - How computers conduct instructions- <a href="#">Link to circuits work</a>		LI TBAT use programming, coding and control - Programming on screen and creating games.	L.I: TBAT know that not all images we see are true to life and may be edited for purpose (Online safety link)	L.I:TBAT understand real life voting that is electronically completed (political, reality tv etc)
	Look at photo editing, filters, settings, terms and conditions, when we use editing: Photoshop	Familiarise with lego		Introduce 'Alex' in ipad and complete levels to own standard	L.I: TBAT know there are a range of photo editing programs available and explore their uses.	L.I: To be aware of different answer formats and when each might be appropriate.
	How can we conduct safe internet searching? Searches for Roman information	Build from instructions as a group		Complete levels and create partner program to control Alex	L.I: TBAT edit a photo of yourself, being aware that some edits improve a picture and some do not.	L.I: TBAT plan questions and link correct answer format to allow online response and analysis.
	Use software: photoshop, to edit pictures. Start to make eSafety poster	Review and assess ongoing progress		Make a more challenging program and give to partner	L.I: TBAT edit a photo for purpose.	L.I: TBAT create questions and answers in an online environment.
	Finish and assess success of posters in conveying messages about internet safety	Operate to move and evaluate work		Discuss and evaluate use of ipads over computer for modern life use	L.I TBAT complete a split screen photo and explain what edits have had which effect.	L.I:TBAT respond to questions in an online environment.
						L.I:TBAT use a program to retrieve data analysis from an online voting system.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<b>U.O: Using Technology Effectively Excel</b>	<b>U.O: Programming, Coding and Control Wedo – Sports Star</b>	<b>U.O: Using Technology Effectively PowerPoint</b>	<b>U.O: How Computers Work Sketch Up</b>	<b>U.O: How Computers Work Movie Maker</b>	<b>U.O: Programming, Coding and Control Scratch</b>
Year 5	L.I: To know the technical vocabulary necessary to use Excel and what Excel is used for in the real world	L.I: TBAT recall knowledge of programming Revise previous programming units, vocabulary and skills used. Establish working groups and roles. Explain outcome model.	L.I: To be aware of an effective PowerPoint  Evaluate what has an impact (pictures, transition, on click entry etc)	L.I: To be aware of the features of Greek architecture.  (Use Google to explore images or interactive tours and create a mindmap/ document on the computer)	L.I: TBAT understand the impact of effective short films and adverts  Watch examples linked to healthy lifestyles	L.I: To be aware computer games have many different levels and platforms..  Explore online games. Highlight E-Safety.
	L.I: To explore the Excel interface and set up a spread sheet.	L.I: TBAT open the Lego software on laptops and identify model to be built and pieces required. Follow instructions and build model	L.I: To plan PowerPoint to be used in Year group assembly  Focus, can't be too long, not too many words on PowerPoint, size appropriate to be seen.	L.I: TBAT navigate the Sketch Up interface.  (orbit, pan, zoom, large tool set, walk and look around tools, selecting objects faces and edges.	L.I: To collect effective images and information to be used in clip.  E-Safety link, practise saving and uploading images, selecting effective vocabulary)	L.I: To review language of programming and gaming  Explore Scratch interface- inputs, delays, sprites etc.
	L.I: To use data to create appropriate graphs.	L.I: TBAT debug a program How many algorithms needed for both models to move? What happens if you change the delays on the two algorithms? Choosing appropriate keys to activate programs	L.I: To explore PowerPoint interface  (Follow teacher to locate layout, insert pictures, textboxes, remove backgrounds etc)	L.I: TBAT use SketchUp to create a sculpture  ( simple geometric structure- could build in class with bricks first.	L.I: To use I pads or cameras to take images and upload  Using different devices to take and upload pictures – if time explore filters, picture effects, pixilation)	L.I: TBAT create a sprite and use keys for simple movements
	L.I: To create an effective print out  (appropriately sized gra[hs, clear titles, selecting all borders so table is clear when printed etc)	L.I: TBAT justify your programming choices Which blocks did they select? Is it a repeating program? What else could we add to improve these? (cheer sound, flashing lights etc)	L.I: To create own PowerPoint for assembly	L.I: TBAT create a Greek style building.  (building features- same size doors, walls, windows? Create walls and ceilings – skylights? Texture options for surfaces linked to what they know about the Greeks) Explore their building from different perspectives.	L.I: TBAT select, input and edit images images into Movie Maker	L.I: TBAT introduce a second costume to the sprite and programme when for this to change
	L.I: To use simple cell formulas to instruct Excel to calculate totals for us.	L.I: To evaluate effectiveness of group work and programming  (Record for folders- sheet in Lego packs if you want it)	L.I: To explore impact of animations on a slide	L.I: TBAT to review and improve digital image  (Review improve and complete, add interior features as necessary and how time permits)	L.I: To improve impact of short film - add text, sound, transition, delay	L.I TBAT create a second sprit that follows a different algorithm
	L.I: TBAT recognise real life uses of such spread sheets and data handling.  Evaluation.	L.I: Explore how programming work in the real world  Examples children can think of. When might this be useful? When might it be problematic?	L.I: To add transitions to a Power point  Evaluate impact of different tools.	L.I: TBAT create a virtual tour of their building SketchUp animation (View> Animation > Add scene) can adapt duration and transitions (View> Animation> Setting) Use Screencast to record voice over?  Show 3D pining video from Rising Stars CD-Rom	L.I: To evaluate effectiveness of short films  Peer assessment, evaluation, sharing of most effective movies?	L.I: TBAT evaluate others games  Peer assessment- evaluate how easy games are to play and explore necessity for de-bugging.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<b>U.O: Using Technology Effectively 2 Type /Mathletics (App?)</b>	<b>U.O: Using Technology Effectively J2Webby or J2Bloggy</b>	<b>U.O: How Computers work WebTech Tutor (LGFL site)</b>	<b>U.O: How Computers Work APP Maker (IPads and LGFL site) (Online support)</b>	<b>U.O: Programming, Coding and Control Scratch</b>	<b>U.O: Programming, coding and control Wedo- Amazing Mechanisms</b>
Year 6	L.I: To assess and improve finger positioning on the keyboard	L.I: To know what a blog is and when they are used  Explore some online blogs, e.g <a href="http://www.telegraph.co.uk/technology/social-media/9929832/Meet-the-children-blogging-about-their-world.html">http://www.telegraph.co.uk/technology/social-media/9929832/Meet-the-children-blogging-about-their-world.html</a>		L.I: To be aware of APPs that are currently available and most popular down loads ( Google Play/ App Store)  List features – menus, touch screen, scroll etc	L.I: To remind yourself of Scratch interface and how to create a sprite.	L.I: To recall knowledge of programming language and role within Lego group
	L.I: To assess accuracy and speed of typing	L.I: E-safety regarding blogs, appropriate language, appropriate topics, suitable information to disclose – screen names		L.I: TBAT explore exciting APPS  LGfL Anne Frank or WWI app	L.I: TBAT to create a car racing game with simple background and programming for each car.	L.I: To create given model and connect to computer  Half class to build Drumming Monkey other half to build Dancing Birds
	L.I: To practice and improve accuracy and speed of typing  (Check for correct keyboard poitioning)	L.I: To create a class blog, explore J2Bloggy		L.I: TBAT plan an appropriate app and collect information/ images.	L.I: To program a sprite to collect sprites, and program movable sprites.	L.I: To create simple algorithm to enable Lego model to move
	L.I: TBAT access safe online site and create a sensible ‘face maker’ for profile	L.I: To plan and collect information/ image for personal blog e.g. history of a football team you play for, history of Wrotham centre/ Margret Mcmillan		L.I: TBAT use LGfL templates to create an app	L.I: TVAT add score board, countdown and ‘You Win’ sprite to game  Ext: To add background and second level to game	L.I: To improve and de-bug algorithm  (add sound, alter speed, rhythm etc)  Ext: write a new program completely of their own
	L.I: TBAT access correct tasks and explore other features of the site	L.I: TBAT create an effective blog		L.I: To complete and improve multi layered (menu style ) app	L.I: To be aware of different gaming platforms and plan a game to be created using scratch	L.I: To record and comment on their program and effectiveness.  Link to real life.
	L.I: To know that work can be assessed and tracked E-safety - how this reflects real life, sites accessed.	L.I: To complete blog and peer assess effectiveness.		L.I: To know role of QR scans  Demonstrate how to use these to up load children’s apps to I Pads	L.I: TBAT use allskills to create their own game  Evaluate	L.I: TBAT evaluate effectiveness of others prorams  Swap with a group who made the other model and comment on possible de-bugging.

