	Computing – A Progression of Knowledge & Skills					
Year grou p	term	topic	area	skills	knowledge	
•	aut	Me & My Family		Unit Composite: To be able to use simple equipme To focus on an activity of their own. Technology To explore the purpose of icons and buttons on toys e.g turn on camera, tablet or remote control cars	nt by using knobs and levers. n choice for a short amount of time.	
			Undorst	Vocabulary button, remote control cars, table	t, camera, toy	
EL2	Spr	Me and my world	Underst anding the world	Technology To play with water to investigate "low technology" such as washing and cleaning To operate mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car		
				Vocabulary button, remote control cars, table	t, camera, toy	
	Sum	Me Growing Up		Technology To use pipes, funnels and other tools to carry/ transport water from one place to another.	Communication & Language To develop an understanding of simple concepts (e.g turning on and off, making a car move fast or slow)	
				Vocabulary turning off, turning on, move, fast, slow		
	term	topic		skills	knowledge	
	aut		Underst Me & anding My the Family world	Technology	ime teaching (like listening to a story) Communication and Language	
YN		ıt My		To know how to operate simple equipment. (e.g turning on a camera, tablet, using a remote, can navigate touch-capable technology with support.)	To be able to express a point of view (in relation to playing games or toys they like)	
				To show an interest in technological toys with knobs or pulleys, real objects such as camera and touchscreen		





		devices such as mobile phones and tablets.
		Vocabulary pull, push, move, forwards, backwards, on, off camera, whiteboard I think I like I dislike
spr	Me & My World	To show skills in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. (e.g I can take a new photo, I can make the toy make a sound) To know how toys work. To know how toys work.
		Vocabulary internet, sounds, movement, forwards, backwards, sideways, lights
sum	Me Growing Up	Technology To play with a range of materials to learn cause and effect. e.g Make a puppet string using dowels and string to suspend the puppet. Playing a game online - if I get it right what happens? If I get it wrong what happens? To use a variety of electronic toys in play situations. To explain the purpose of icons and buttons on toys. Communication and Language To follow directions (if not intently focused)
		Vocabulary Instruction, touchscreen, buttons, cause, effect

Year grou p	term	topic	area	skills	knowledge
YR	aut	Me & My Famil Y	Under standi ng the world	Unit Composite To use a range of technology for particular to complete a simple program on electronic devices e.g. completing a game on topmarks To use ICT hardware to interact with age appropriate computer software e.g. busy things, topmarks, paint, purplemash Vocabulary keyboard, buttons, touchpad, touchsoftware, paint, purplemash	Communication and Language To show variability in listening behaviour; may move around and fiddle but still be listening or sit still but not absorbed by activity creen, sound, light, picture, screen





spr	Me & My World	To create content such as a video recording, stories, and/or draw a picture on screen To develop digital literacy skills by being able to access, understand and interact with a range of technologies	Communication and Language To indicate two-channelled attention, e.g. paying attention to something of interest for short or long periods; can both listen and do for short span To connect one idea or action to another using a range of connectives.
		Vocabulary choose, image, object, create, choice	
sum	Me Growing Up	Technology To use the internet with adult supervision to find and retrieve information of interest to them. To be able to use touchpad to complete age appropriate activities. (Examples - Completing games on interactive whiteboard - using purplemash, busythings etc). To be able to enter a simple password. (Example logging into chromebook) To know how to access learning online. Example - Using google classroom to access links and learning. To navigate web pages and online games using buttons and hyperlinks.	To understand the difference between safe and unsafe. e.g Knowing it is only safe to go online when an adult is present. Knowing how to stay safe on trips. Knowing what stranger danger is.

Year group	term	topic	skills	knowledge
Y1	aut	Once Upon a Time	Digital research To identify key features of real world publications (English: text types) To compare digital resources to traditional books (history link) Digital publishing and presentation To enter, revise and edit text using a real or on-screen keyboard (logging in) Digital media	







To explore the tools in a painting program to make a picture (Purple Mash/traditional tales)

To record ourselves speaking using devices (story buttons/storyboards)

Unit Composite Using Technology Safely

To know how to be safe online.

Term 1: Using technology safely – staying safe online

Autumn 1: Using technology safely – staying safe online

To descrtibe some of the ways that they communicate online (Lesson 1)

To explain the difference between a stranger & someone they know (Lesson 2)

To make a list of trusted adults they could ask for help (Lesson 3)

Unit Composite

Programming A - Moving a robot

To know what commands are and be able to use them to predict outcomes and solve problems

Autumn 2: Programming A

To explain what a given command will do (Lesson 1)

To act out a given command (Lesson 2)

To combine 'forwards' and 'backwards' commands to make a sequence (Lesson 3)

To combine four direction commands to make sequences (Lesson 4)

Autumn 2: Programming A

To plan a simple program (Lesson 5)

To find more than one solution to a problem (Lesson 6)

Vocabulary – online safety

communicate, online, public, private, device

Vocabulary - coding

order, sequence, steps, instructions, command





		The LETTA Tru	ST 😽
spr	Animal Kingdom	Digital media To describe the content of photos (science) Digital publishing and presentation To enter, revise and edit text use a real or onscreen keyboard. Digital research To explore websites to find useful information Unit Composite Programming B To understand how commands work an Spring 1: To choose a command for a given purpose (L1) To show that a series of commands can be joined together (L2) To design the parts of a project (L5) To use my algorithm to create a program (L6) Vocabulary - Computer Games touchpad, instructions, menu, 20charace	Spring 1: To identify the effect of a changing value (L3) To explain that each sprite has its own instructions (L4)
sum	We Love London	Digital media To take a digital photo of their own choice and subject (trip) To make digital animations Unit Composite Computer Systems & Networks To know the parts of computer and know everyday life	w how a computer can help me in my







me Lena n	02I ***
Summer 1: Computer systems & networks	Summer 1: Computer systems & networks
To use a mouse/touchpad in different ways (Lesson 3)	To identify technology (Lesson 1)
To use a keyboard to type on a computer (Lesson 4)	To identify a computer and its main parts (Lesson 2)
To use the keyboard to edit text (Lesson 5)	
To create rules for using technology (Lesson 6)	
Unit Composite Using Technology Safely	
•	being unkind in school or at home. Summer 2: Using technology safely – being respectful and responsible online
Using Technology Safely To compare being unkind online and Summer 2: Using technology safely – being respectful and responsible online To compare being unkind online and	Summer 2: Using technology safely – being
Using Technology Safely To compare being unkind online and Summer 2: Using technology safely – being respectful and responsible online	Summer 2: Using technology safely – being respectful and responsible online To identify situations where on-screen
Using Technology Safely To compare being unkind online and Summer 2: Using technology safely – being respectful and responsible online To compare being unkind online and	Summer 2: Using technology safely – being respectful and responsible online To identify situations where on-screen requests need checking (ILesson 4) To explain the importance of being kind to others online (Lesson 5)
Using Technology Safely To compare being unkind online and Summer 2: Using technology safely – being respectful and responsible online To compare being unkind online and	Summer 2: Using technology safely – being respectful and responsible online To identify situations where on-screen requests need checking (ILesson 4) To explain the importance of being kind to others online (Lesson 5) To describe how to respond to hurtful online comments (Lesson 6)
Using Technology Safely To compare being unkind online and Summer 2: Using technology safely – being respectful and responsible online To compare being unkind online and offline (Lesson 6)	Summer 2: Using technology safely – being respectful and responsible online To identify situations where on-screen requests need checking (ILesson 4) To explain the importance of being kind to others online (Lesson 5) To describe how to respond to hurtful online comments (Lesson 6)
Using Technology Safely To compare being unkind online and Summer 2: Using technology safely – being respectful and responsible online To compare being unkind online and offline (Lesson 6)	Summer 2: Using technology safely – being respectful and responsible online To identify situations where on-screen requests need checking (ILesson 4) To explain the importance of being kind to others online (Lesson 5) To describe how to respond to hurtful online comments (Lesson 6) etworks pad, keyboard, screen, double click, typing

Year group	term	topic	skills	knowledge
Y2	aut	Fire! Fire!	Digital media To use painting tools to create images (D&T) Digital research To navigate websites and online tools	







Unit Composite Using Technology Safely

To understand the importance of keeping private information private and the dangers of speaking to strangers online.

Autumn 1: Using technology safely – staying safe online

To make a lisr of what personal information they should NOT reveal (Lesson 1 & 2)

Autumn 1: Using technology safely – staying safe online

To explain the difference between public and private in simple terms (Lesson 1 & 2)

To explain the difference between a stranger & someone they know (Lesson 3)

To understand some of the dangers of talking to strangers (Lesson 3)

Unit Composite Programming A - Robot Algorithms

To write multiple lines of code to achieve a given outcome using knowledge about sequencing and algorithms.

Autumn 2: Programming

To describe a series of instructions as a sequence (Lesson 1)

To use logical reasoning to predict the outcome of a program (Lesson 3)

To design an algorithm (Lesson 5)

To create and debug a program that I have written(Lesson 6)

Autumn 2: Programming

To explain what happens when change the order of instructions (Lesson 2)

To explain that programming projects can have code and artwork (Lesson 4)

Vocabulary – online safety

internet, password, private, personal, stranger, information

Vocabulary - Programming A

algorithm, break down, block commands, repeat, loop, efficient, predict

Digital media

To take a photo for a purpose (local area)

To create and play back simple video clips of themselves (PE, Poetry Slam)

Unit Composite

Secret

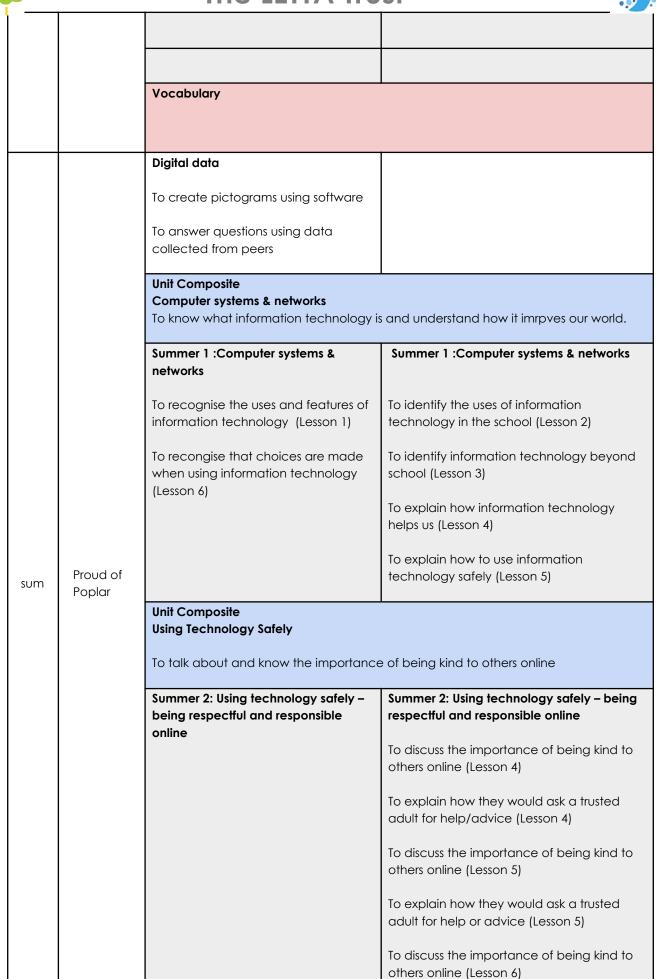
Garden

Playing and analysing computer games:

To use technology purposefully to create, organise, manipulate and retrieve digital content.













Vocabulary - Computer systems & networks

Information technology (IT), computer, barcode, scanner/scan

Vocabulary - Using Technology Safely

share, respect, uncomfortable, pause

Year				
group	term	topic	skills	knowledge
9.000			Digital media	
Y3	aut	Invaders & Settlers	Digital media To record an event with a series of digital photos (science: magnets) To select and use copy and paste tools to edit a painting/image (science: earth and space) Digital publishing and presentation To add appropriate transitions or animations to slides in a presentation Unit Composite Using Technology Safely To understand and explain why sendidangerous Autumn 1: Using technology safely – staying safe online	Ing and receiving messages can be Autumn 1: Using technology safely – staying safe online To describe some differences between private/public communication (Lesson 1 & 2) To explain why sending and receiving messages can be dangerous (Lesson 3)
			Unit Composite Programming A - Sequencing Sounds	
			To show an understanding of the important programming environement to be ab	
			Autumn 2: Programming A	Autumn 2: Programming A
			To explore a new programming environement (Lesson 1)	To explain that programming has a start (Lesson 3)
			To identify that commands have an outcome (Lesson 2)	





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			To recognise that a sequence of commands have an order (Lesson 4)	
			To change the appearance of my project (Lesson 5)	
			To create a project from a task descripton (Lesson 6)	
			Vocabulary – Using Technology Safel	у
			communicate, digital footprint, messo	aging
			Vocabulary – Programming	
			Scratch, programming, blocks, common backdrop, motion, turn, point in direct chord, algorithm, code.	nands, code, sprite, costume, stage, tion, glide, sequence, event., order, note,
			Digital research	Digital research
			To use search tools within websites and digital libraries (researching history)	To know how to look at the creator/author of a website (researching history, eg, Boudicca: Roman vs Celtic)
			Unit Composite	
			Playing and analysing computer gam	nes:
	spr	Super Humans	To use events to add interactivity to c	ı program for a simple game
			Vocabulary	
			code, errors, interactivity, playability,	conditional
Ī			Digital media	
			To create a simple digital musical composition or soundscape (music)	
			To shoot a digital video clip to	
			record an event or process (science: growing plants and	
	sum	Rainforest Explorers	flowers)	
			Digital research	
			To select digital resources to answer questions	
			To use search, sort and filter tools within a prepared database to	







answer questions (maths: data handling)

Digital data

To identify and correct errors in a set of prepared data (maths: data handling)

To create bar charts with software

Unit Composite

Computer Systems and Networks

To understand and explain the benefits of connecting devices in a network

Summer 1 :Computer systems & networks

To explore how digital devices can be connected (Lesson 5)

Summer 1 :Computer systems & networks

To explain how digital devices function (Lesson 1)

To identify input and output devices (Lesson 2)

To recognise similarities between using digital devices and using non-digital devices (Lesson 3)

To explain how a computer network can be used to share information (Lesson 4)

To recognise the phyical components of a network (Lesson 6)

Unit Composite

To explain how to respond to hurtful comments and cyberbullying

Summer 2: Staying safe online – being respectful and responsible

Summer 2: Staying safe online – being respectful and responsible

To describe SMART rules for staying safe online (Lesson 1)

To explain why it is wrong to post negative/hurtful comments/pictures (Lesson 5)

To explain how to respond to hurtful comments and cyberbullying (Lesson 6)

Vocabulary - Computer systems and netowrks

digital device, input, process, output, programm, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets







Vocabulary - Using Technology Safely

attachment, virus, reliable, responsible, cyberbullying, hurtful

Year				
group	term	topic	skills	knowledge
			To change settings on a camera e.g. flash date, timers, macro	
			Unit Composite Using Technology Safely	
			To know how to respond appropriately to	
			Autumn 1: Using technology safely – staying safe online	Autumn 1: Using technology safely – staying safe online
				To describe some difference between public and private information (Lesson 1)
				To explain why sending and receiving messages can be dangerous (Lesson 2)
				To explain how to respond to hurtful comments and cyberbullying (Lesson 3)
Y4	aut	Robots	Unit Composite Programming A - Repetition in shapes To plan, modify and text count controlled	loop commands
			Autumn 2: Programming A	Autumn 2: Programming A
			To create a program in a text-based language (Lesson 2)	To identify that accuracy in programming is important (Lesson 1)
			To modify a count-controlled loop to produces a given outcome (Lesson 4)	To explain what 'repeat' means (Lesson 3)
			To decompose a task into small steps (Lesson 5)	
			To create a program that uses count-controlled loops to produce a given outcome (Lesson 6)	
			Vocabulary - online safety	
			assumption, identity, selfie, security, memo	orable, scenario, consequence
			Vocabulary – coding	







_				
			decomposition, conditional, choice, selec	tion, pattern, if, when
			Digital media	
			To compose and edit a musical sequence with several tracks (music)	
			Digital research	
			To explain simple ways to check the accuracy of online information	
		Off with	Unit Composite	
	spr	their heads		
			Vocabulary	
			evaluate, analyse, detect, playability	
			Digital media	
			To use digital tools to crop and resize images and photos (mountains)	
			To create an animation to show a process or explain something (water cycle)	
			Digital research	
			To find useful information on pre-selected websites	
	sum	Extreme Earth	To use digital resources to make notes for a report	
			Digital publishing and presentation	
			Format text to change font style size and layout	
			To add transitions to slides to improve it	
			To explain how they would improve their work(non-chronological report: mountains)	
			Digital data	
		I	I	







To collect data and crea
a simple database with fields and
record

To create a simple spreadsheet to organise information (maths: data handling)

Unit Composite - Computer systems & networks

Understand that the internet is a network of networks, with the World Wide Web a part of this. To explore the WWW, understanding and evaluating the content found online

Summer 1: Computer systems & networks

To describe how networks physically connect to other networks (lesson 1)

To describe how content can be added and accessed on the World Wide Web (WWW) (lesson 4)

To evaluate the consequences of unreliable content (lesson 6)

Summer 1: Computer systems & networks

To know how networked devices make up the internet (lesson 2)

To outline how websites can be shared via the World Wide Web (WWW) (lesson 3)

To know how the content of the WWW is created by people (lesson 5)

Unit Composite Using Technology Safely

To explain why it is wrong to post negative/hurtful comments and pictures.

Summer 2: Staying safe online – being respectful and responsible

Summer 2: Staying safe online – being respectful and responsible

To know it is wrong to present another person's work as your own (Lesson 4)

To explain how to respond to hurtful comments and cyberbullying (Lesson 5)

To explain why it is wrong to post negative/hurtful comments/pictures (Lesson 6)

Vocabulary - Computer systems and networks

router, security, website, web page, web address, routing, web browser, World Wide Web, content, links, files, download, sharing, ownership, permission

Vocabulary - Using Technology Safely

recognition, empathy, interpret, responsibility, upstanding, plagiarism, copyright

Year group	term	topic	skills	knowledge
Y5	aut	Meet the Greeks!	Digital media	







To use graphics tools to manipulate and 'fake' images (green screen – small groups)

To create a stop motion animation

Unit Composite Using Technology Safely

To understand that your data might be stored and used for advertising

Autumn 1: Using technology safely – staying safe online

To evaluate e-safety resources aimed at their own age range (Lesson 3)

Autumn 1: Using technology safely – staying safe online

To understand that once infor is online it is very difficult to remove (Lesson 1)

To explain when to reporn an online issue to someone in authority (Lesson 2)

To understand that your data might be stored and used for advertising (Lesson 3)

Unit Composite

Programming A - A selection in physical computing

To use a microcontroller and know how to use it to control components

Autumn 2: Programming A

To control a simple circuit connected to a computer (Lesson 1)

To write a program that includes count-controlled loops (Lesson 2)

To design a physical project that includes selection (Lesson 5)

To create a program that controls a physical computing project (Lesson 6)

Autumn 2: Programming A

To explain that a loop can stop when a condition is met (Lesson 3)

To explain that a loop can be used to repeatedly check whether a conidtion has been met (Lesson 4)

Vocabulary – online safety

digital footprint, consent, effective, relevant, data

Vocabulary - coding

process, dilemma, sprite, until, while, repeat until, if...then...

Dig

spr Space Race

Digital media

To use animations/sounds effects effectively in presentations







[
			To create and adapt publications for a specific audience		
			To plan and complete a photoshoot for an event		
			To compose and develop digital music using a range of tools		
			Unit Composite		
			Vocabulary		
			simulation, first person, platform, maze		
			Digital research	Digital research	
			To use search tools to find information effectively and safely	To know that sources should be credited	
			To compare the same information on different websites and books		
			Digital data		
			To use simple formulae in a spreadsheet for calculation		
	sum	Eco-Warriors			
			Unit Composite - Computer systems & r	networks	
			To know how information is transferred between systems and devices, and understand how search engines work, including what influences searching and how results are ranked		
			Summer 1: Computer systems & networks	Summer 1: Computer systems & networks	
				To discuss the reasons for age restriction rules on social media (Lesson 4)	
				To describe how to block unwanted attention and ask for help (Lesson 5)	
				15	







To explain what cyberbullying is and what young people can do to stop it (Lesson 6)

Unit Composite Using Technology Safely

To explain what cyberbullying is and identify ways young people can stop it

Summer 2: Staying safe online – being respectful and responsible

To discuss the reasons for age restriction rules on social media (Lesson 4)

To describe how to block unwanted attention and ask for help (Lesson 5)

Summer 2: Staying safe online – being respectful and responsible

To explain what cyberbullying is and what young people can do to stop it (Lesson 6)

Vocabulary - Computing systems and networks

system, connection, storage, search engine, refine, index, bot, search engine optimisation, web crawler, content creator, selection, ranking

Vocabulary - Using Technology Safely

restriction, features, responsible, irresponsible, cyberbullying







Year	term	topic	skills	knowledge
group Y6	term	Blitz & Blackouts	Digital media To know how to find different types of digital media and tools Digital research To use research tools to make notes to support a point of view To explain some simple ways to select digital content Unit Composite Using Technology Safely	Autumn 1: Using technology safely – staying safe online Ti explain why your online history is called a digital footprint (Lesson 1) To explain when to report an online issues to someone in authority (Lesson 2)
			Unit Composite Programming A -Variables in games To understand what variables are and	To understand that your data might be stored and used for advertising (Lesson 3)
			Autumn 2: Programming A	Autumn 2: Programming A
			To choose how to improve a game by variables (Lesson 3)	To define a 'variable' as something that is changeable (Lesson 1)
			To design a project that builds on a given example (Lesson 4)	To explain why a variable is used in a program (Lesson 2)
			To use my design to create a project (Lesson 5)	To evaluate my project (Lesson 6)
			Vocabulary – Using Technology Safely	
			advertising clickbait, false identity, digit	tal footprint, security, data, advertising, harm
			Vocabulary – coding	







		process, dilemma, until, while, repeat until, ifthenelse	
		Digital data To understand how statistics can be manipulated	
		Unit Composite	
		Spring 1: Programming B	Spring 1: Programming B
spr	Rivers of Time	To create a program to run on a controllable device (lesson 1)	
		To explain that selection can control the flow of a program (lesson 2)	
		To update a variable with a user input (lesson 3)	
		To use a conditional statement to compare a variable to a value (lesson 4)	
		To design a project that uses inputs and outputs on a controllable device (lesson 5)	
		To develop a program to use inputs and outputs on a controllable device (lesson 6)	
		West Live	
		permissions, refine, explore, version, aud	dience, tutorial, animate, network
		Digital media	
		To plan a photo shoot for a school event or trip	
		To use a range of media tools to fulfil a design brief	
sum	Who am	To use software to create stop animation	
		Unit Composite - Computer systems & r	networks
		To know and evaluate how data is tran internet enables online communication	







The LETTA Trust		
Summer 1: Computer systems & networks	Summer 1: Computer systems & networks	
To explain the importance of internet addresses (lesson 1)	To know how data is transferred across the internet (lesson 2)	
To explain how sharing information online can help people to work together (lesson 3)	To know how we communicate using technology (lesson 5)	
To evaluate different ways of working together online (lesson 4)		
To evaluate different methods of online communication (lesson 6)		
Unit Composite Using Technology Safely		
To explain how to stay safe online and cyberbullying	identify resources that can help with	
Summer 2: Staying safe online – being respectful and responsible	Summer 2: Staying safe online – being respectful and responsible	
To describe how to block unwanted attention and ask for help (Lesson 5)	To explain what cyberbullying is and what young people can do to stop it (Lesson 4)	
To explore and review resources that could help with cyberbullying (Lesson 6)	To explain how they stay safe online with examples and scenarios (Lesson 6)	
Vocabulary - Computing system and n	etworks	
protocol, data, internet protocol (IP), D data payload, reuse, one way, two-wo	omain Name Server (DNS), packet, header, y, one-to-one, one-to-many	

Vocabulary - Using Technology Safely

bystander, benefit, guidance, advice

