



Computing Long Term Plan LKS2



	Autumn	Spring	Summer
Year A			
Topic	Unit 3.2e-safety Unit 3.3 spreadsheets Unit 3.4 Touch typing	Unit 3.5 e-mail, Unit 4.4 writing for different audiences	Coding (espresso level 3), LOGO
Relevant area of Programme of study	<p>-use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p> <p>-understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>-use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and</p> <p>-create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p>	<p>-use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p> <p>-understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p>	<p>-design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>-use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>



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Vocabulary	<p>Unit 3.2 Password, blog, website, Web page, spoof website, pegi rating, username, concept map, Internet</p> <p>Unit 3.3 Columns, move cell tool, cells, rows, spin tool, delete key, advance mode, =<></p> <p>Unit 3.4 Posture, top row keys, home row keys, bottom row keys, spacebar</p>	<p>Unit 3.5 Communication, report to teacher, password, email, attachment, cc, compose, send, address book, save to draft, formatting</p> <p>Unit 4.4 Font, bold, italic, underline</p>	<p>Action, algorithm, animation, app, background, boolean, bug, change, debugging, error , event, execute, inout, instructions, loop, message box, object, operator, output, pixe, pointer, program, properties, random, repeat, run, scope, selection, sequence, simulate, simulation, sprite, string, syntax, tap, value, varialbe</p>
Concepts	online safety and spreadsheets	touch typing, email and using email to correspond	Coding
Key Knowledge	<p>3.2</p> <ul style="list-style-type: none"> • To know what makes a safe password. • Methods for keeping passwords safe. • To understand how the Internet can be used in effective communication. • To understand how a blog can be used to communicate with a wider audience. • To consider the truth of the content of websites. • To learn about the meaning of age restrictions symbols on digital media and devices. <p>3.3</p> <ul style="list-style-type: none"> • To use the symbols more than, less than and equal to, to compare values. 	<p>3.5</p> <ul style="list-style-type: none"> • To think about different methods of communication. • To open and respond to an email using an address book. • To learn how to use email safely. • To add an attachment to an email. • To explore a simulated email scenario. <p>4.4</p> <ul style="list-style-type: none"> • To explore how font size and style can affect the impact of a text. • To use a simulated scenario to produce a news report. • To use a simulated scenario to write for a community campaign. 	<p>To write a computer program where different pieces of code execute in a particular sequence.</p> <p>To create a program that uses sequences for two different objects moving on the screen</p> <ul style="list-style-type: none"> • To write code that uses a timer to create a sequence of events <p>To write code that uses a timer to create a sequence of traffic lights turning on and off</p> <ul style="list-style-type: none"> • To use 'hit events' to program a space maze game in which an object reacts to particular conditions. <ul style="list-style-type: none"> • To use conditional hit events to control the movement of a car on the screen

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	<ul style="list-style-type: none"> To use 2Calculate to collect data and produce a variety of graphs. To use the advanced mode of 2Calculate to learn about cell references. <p>3.4</p> <ul style="list-style-type: none"> To introduce typing terminology. To understand the correct way to sit at the keyboard. To learn how to use the home, top and bottom row keys. To practise typing with the left and right hand. 		<p>To make a simple game that uses conditional hit events to check if one object has hit another.</p> <p>To program a simple game where conditional events are used to check whether objects have collideded.</p>
Year B			
Topic	Unit 4.2 Online safety, Unit 3.7 simulations, Unit 3.8 graphing	Unit 4.6 Animation, coding (Espresso level 4)	Unit 3.6 Branching databases, Unit 4.7 effective searching, Unit 4.8 hardware investigations
Relevant area of Programme of study	<p>-use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and</p> <p>-create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p>	<p>-create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>-design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>-use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	<p>-use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and</p> <p>-create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p>
Vocabulary	Unit 4.2 computer virus, digital footprint, phishing, cookies, email, plagiarism, identity theft, copyright, malware, spam	Unit 4.6	Unit 3.6 Branching database, database, question, data

	<p>Unit 3.7 Simulation</p> <p>Unit 3.8 Graph, field, data, bar chart, block graph, line graph, pie chart, row, column</p>	<p>Animation, flip book, frame, onion skinning, background, play, sound, stop motion, video clip</p>	<p>Unit 4.7 Easter egg, Internet Internet browser, search, search engine, spoof website, website</p> <p>Unit 4.8 Motherboard, cpu, ram, graphics card, network card, monitor, speakers keyboard and mouse</p>
Concepts	Online safety, digital footprint and simulations	Animation and coding	data handling, databases and hardware
Key Knowledge	<p>Unit 4.2:</p> <ul style="list-style-type: none"> To understand how children can protect themselves from online identity theft. Understand that information put online leaves a digital footprint or trail and that this can aid identity theft. To Identify the risks and benefits of installing software including apps. To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. To identify the positive and negative influences of technology on health and the environment. 	<p>Unit 4.6</p> <ul style="list-style-type: none"> To discuss what makes a good animated film or cartoon. To learn how animations are created by hand. To find out how 2Animate can be created in a similar way using the computer. To learn about onion skinning in animation. To add backgrounds and sounds to animations. To be introduced to 'stop motion' animation. <p>ESPRESSO CODING LEVEL 4</p> <p>-To understand how a variable can be used to keep track of the score in a game</p>	<p>Unit 3.6:</p> <ul style="list-style-type: none"> To sort objects using just 'yes' or 'no' questions. To complete a branching database using 2Question. To create a branching database of the children's choice. <p>Unit 4.7:</p> <ul style="list-style-type: none"> To locate information on the search results page. To use search effectively to find out information. To assess whether an information source is true and reliable. <p>Unit 4.8:</p> <ul style="list-style-type: none"> To understand the different parts that make up a computer. To recall the different parts that make up a computer.

	<ul style="list-style-type: none"> To understand the importance of balancing game and screen time with other parts of their lives. <p>Unit 3.7:</p> <ul style="list-style-type: none"> To consider what simulations are. To explore a simulation. To analyse and evaluate a simulation. <p>Unit 3.8:</p> <ul style="list-style-type: none"> To enter data into a graph and answer questions. To solve an investigation and present the results in graphic form. 	<p>-To use variables to keep track of the score in a game that uses conditional events.</p> <ul style="list-style-type: none"> To use a variable to keep track of the score in a game that uses conditional events To learn how to use multiple different variables and to set the value of a variable To use a variable to keep track of the score in a game where the score increases, decreases or resets when different conditions are met. <p>In this lesson, pupils will be introduced to the 'repeat' and 'loop' concepts in coding.</p> <ul style="list-style-type: none"> To write code that uses nested loops to create a car-driving program. • Designs simple algorithms using loops and selection, i.e. if statements. (AL) <p>To write the code to program a rocket to orbit round the spinning Moon, using the concepts of loops, regular or infinite repetition, and 'if statement' blocks.</p> <p>To use loops, a variable and if statements to create an animated scene</p>	
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