Computing					
	Year 7	Year 8	Year 9	Year 10	Year 11
Autumn 1	**Collaborating Online Respectfully** Lesson 1: • What is a memorable and secure password for an account on the school network? • What are the rules of the computing lab? Lesson 2: • What are personal documents and common applications • Can you recognise a respectful email? • Can you construct an effective email and send it to the correct recipients? Lesson 3: • How should you communicate with peers online? Lesson 4: • Can you plan effective presentations for a given audience?	**App Inventor** Lesson 1: • Can you explain the App Inventor interface? • Can you set up a basic talking app? Lesson 2: • Can you create an advanced talking app with additional features? Lesson 3: • Can you create a doodling App? • Can you create a game app using a ball feature? Lesson 4: • Can you create an advanced gaming app? Lesson 5:	**Systems Architecture** ***1.1.1*** • What actions occur at each stage of the fetch-execute cycle? • What is the role/purpose of each component and what does it manage, store, or control during the fetch-execute cycle? • What is the purpose of each register? What does it store? (data or address) • What is the difference between storing data and an address? ***1.1.2*** • How do common characteristics	**Algorithms** ***2.1.1*** • Can you explain the principles of computational thinking? ***2.1.2*** • Can you identify the inputs, processes, and outputs for a problem? • Can you accurately design structure diagrams? • Can you create, interpret, correct, complete, and refine algorithms? • Are you able to identify common errors? • Can you accurately create trace tables? ***2.1.3***	**Wired and Wireless Networks** ***1.3.2*** • What are the benefits and drawbacks of using wired over wireless? • What is encryption? Why do we use it? • What is an IP address? • What is a MAC address? • What do we mean by a 'standard' in computing? • What protocols do we use? For what purpose? • Can you describe the concept of layers? **Network Security** ***1.4.1*** • What threats are posed to our devices/systems? • What different forms of attack are there? • How are these attacks used?

	• Can you describe cyberbullying? • Can you explain the effects of cyberbullying? <u>Lesson 5</u>: • Can you plan effective presentations for a given audience? • Can you describe cyberbullying? • Can you explain the effects of cyberbullying? <u>Lesson 6</u>: • Can you plan effective presentations for a given audience? • Can you describe cyberbullying? • Can you explain the effects of cyberbullying?	• Can you create your own App using learnt skills and techniques? <u>Lesson 6</u>: • Can you review and reflect on your learning?	of a CPUs affect the performance? ***1.1.3*** • What are the purposes and characteristics of embedded systems? • Can you identify and explain examples of embedded systems?	• Can you identify and apply standard searching algorithms? • Can you identify and apply standard sorting algorithms?	• What is the purpose of an attack? ***1.4.2*** • How do we limit the threats posed to us from attacks? • How do we remove vulnerabilities? • Can you identify what each prevention method may limit/prevent? • Can you describe how a prevention method may limit an attack? **Systems Software** ***1.5.1*** • What is the purpose and functionality of an operating system? • What are the features of a user interface? • What is memory management and how does this allow for multi-tasking? • Can you describe how data is transferred between devices? • Can you identify user management functions and how they work?

					• Can you identify and describe key features of file management? ***1.5.2*** • Can you identify different types of utility software? • How does utility software perform 'housekeeping' tasks? • What is the purpose of utility software? • Why is utility software required?
Autumn 2	**What are Computers** <u>Lesson 1-3</u> (History of Computers): • Can you identify key points in the development of computers? <u>Lesson 4</u>: • Can you identify inputs and outputs? • Can you identify sensors? <u>Lesson 5</u>: • Can you describe what is inside a computer?	**Animation** <u>Lesson 1</u>: • Can you add, delete, and move objects • Can you scale and rotate objects • Can you use a material to add colour to objects <u>Lesson 2</u>: • Can you add, move, and delete keyframes to make basic animations • Can you play, pause, and move	**Memory & Storage** ***1.2.1*** • Why do we need primary storage? • What is the difference between RAM and ROM? • What is the purpose of ROM in a computer system? • What is the purpose of RAM in a computer system?	**Programming Concepts** ***2.2.1*** • Can you apply variables, constants, operators, inputs, outputs and assignments in your programming? • Can you use the three basic programming constructs used to control the flow of a program? • What are the common	**PPE Preparation** • *Go back over key vocabulary terms and key ideas* **Ethical, Legal, Cultural and Environmental Impacts of Digital Technology** ***1.6.1*** • What impacts does digital technology have on wider society? • Can you identify and describe examples of digital technology and how these impact society?

	Lesson 6 & 7: • Can you decode binary numbers? • Can you use conversions using ASCII? Lesson 8: • Can you recognise computer networks and where they are used?	through the animation using the timeline • Can you create useful names for objects • Can you join multiple objects together using parenting Lesson 3: • Can you use edit mode and extrude • Can you use loop cut and face editing • Can you apply different colours to different parts of the same model Lesson 4: • Can you use proportional editing • Can you use the knife tool • Can you use subdivision Lesson 5: • Can you add and edit set lighting	• What is virtual memory? ***1.2.2*** • Why do we need secondary storage? • Can you identify and explain common types of storage? • Can you identify suitable storage devices and storage media for a given application? • What are the advantages and disadvantages of different storage devices?	arithmetic operators? • What are the common Boolean operators?	• What legislation do we use that is relevant to computer science? • Can you describe the purpose of each piece of legislation? What actions do they allow or prohibit? • Why do we need to license software? • What do we mean by open-source software?

		• Can you set up the camera • Can you compare different render modes Lesson 6: • Can you create a 3–10 second animation • Can you render out the animation			
Spring 1	**Scratch** Lesson 1: • Can you compare how humans and computers understand instructions • Can you recognise that computers follow the control flow of input/process/output? • Can you describe a sequence as instructions performed in order, with each executed in turn? • Can you predict the outcome of a simple sequence?	**Cybersecurity** Lesson 1: • Can you explain the difference between data and information • Can you critique online services in relation to data privacy • Can you identify what happens to data that is entered online • Can you explain the need for the Data Protection Act Lesson 2:	**Units of Data** ***1.2.3*** • How do we measure data storage? • Why does data need to be converted into a binary format to be processed by a computer? • What is data capacity and how do we calculate how much we need? ***1.2.4 (Numbers)***	**Programming Concepts** ***2.2.2*** • Can you identify and choose a suitable data type for a given scenario? ***2.2.3*** • Can you manipulate strings? • Understand the use of basic file handling operations: • Why do we use records to store data?	**Revision on Architecture of the CPU, CPU performance** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision on Embedded Systems** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision on primary and secondary storage** • *Refer back to keywords/questions*

	• Can you modify a sequence? Lesson 2: • Can you define a variable as a name that refers to data being stored by the computer? • Can you recognise that computers follow the control flow of input/process/output? • Can you predict the outcome of a simple sequence that includes variables? • Can you trace the values of variables within a sequence? • Can you make a sequence that includes a variable? Lesson 3: • Can you define a condition as an expression that will be evaluated as either 'true' or 'false'? • Can you identify that selection uses conditions	• Can you recognise how human errors pose security risks to data • Can you implement strategies to minimise the risk of data being compromised through human error Lesson 3: • Can you define hacking in the context of cybersecurity • Can you explain how a DDoS attack can impact the users of online services • Can you identify strategies to reduce the chance of a brute force attack being successful? • Can you explain the need for the Computer Misuse Act (1990) Lesson 4:	• How do we convert positive denary whole numbers to binary numbers? • How do we add two binary integers together? • Can you identify and solve overflow errors which may occur? • How do we convert positive denary whole numbers into 2-digit hexadecimal numbers? • How can we convert binary integers to their hexadecimal equivalents? • What are binary shifts? ***1.2.4 (Characters)***	• Why do we use SQL to search for data? • Why do we use arrays (or equivalent) when solving problems? • Can you understand how to use sub programs (functions and procedures) to produce structured code? • Can you create and use random numbers in a program?	*previously discussed earlier in the curriculum* **Revision on Units, data storage** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision on Characters, images, sound** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision on Compression, lossy and Lossless** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision on networks, topologies, wired and wireless** • *Refer back to keywords/questions*

	to control the flow of a sequence? • Can you identify where selection statements can be used in a program? • Can you modify a program to include selection? <u>Lesson 4</u>: • Can you create conditions that use comparison operators (>,<,=) • Can you create conditions that use logic operators (and/or/not) • Can you identify where selection statements — that include comparison and logical operators — can be used in a program <u>Lesson 5</u>: • Can you define iteration as the process of repeatedly executing instructions • Can you describe the need for iteration	• Can you list the common malware threats • Can you examine how different types of malware cause problems for computer systems • Can you question how malicious bots can have an impact on societal issues <u>Lesson 5</u>: • Can you compare security threats against their probability and their potential impact to organisations • Can you explain how networks can be protected from common security threats <u>Lesson 6</u>: • Can you identify the most effective methods to prevent cyberattacks	• Why do we use binary codes to represent characters? • What do we mean by the term 'character set'? • What is the relationship between the number of bits per character in a character set, and the number of characters which can be represented?		*previously discussed earlier in the curriculum*

	• Can you identify where count-controlled iteration can be used in a program • Can you implement count-controlled iteration in a program • Can you detect and correct errors in a program (debugging) <u>Lesson 6</u>: • Independently use programming constructs to solve a problem (subroutine, selection, count-controlled iteration, operators, and variables).				
Spring 2	**Modelling Data - Spreadsheets** <u>Lesson 1</u>: • Can you identify columns, rows, cells, and cell references in spreadsheet software • Can you use formatting techniques in a spreadsheet <u>Lesson 2</u>:	**Python** <u>Lesson 1</u>: • Can you describe what algorithms and programs are and how they differ • Can you recall that a program written in a programming language needs to be translated in	**Units of Data** ***1.2.4 (Images)*** • How is an image represented as a series of pixels? • How is an image represented in binary? • What is metadata?	**Programming Concepts** ***2.3.1*** • Defensive design considerations: → Anticipating misuse → Authentication • Input validation • Maintainability: → Use of sub programs → Naming conventions → Indentation	**Revision on forms of attack** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision identifying and preventing vulnerabilities** • *Refer back to keywords/questions previously discussed*

	• Can you use basic formulas with cell references for calculations in a spreadsheet (+, -, *, /) • Can you use the autofill tool to replicate cell data <u>Lesson 3</u>: • Can you explain the difference between data and information • Can you explain the difference between primary and secondary sources of data • Can you collect data <u>Lesson 4</u>: • Can you analyse data • Can you create appropriate charts in a spreadsheet • Can you use the functions SUM, COUNTA, MAX, and MIN in a spreadsheet <u>Lesson 5</u>: • Can you analyse data • Can you use a spreadsheet to sort and filter data	order to be executed by a machine • Can you write simple Python programs that display messages, assign values to variables, and receive keyboard input • Can you locate and correct common syntax errors <u>Lesson 2</u>: • Can you describe the semantics of assignment statements • Can you use simple arithmetic expressions in assignment statements to calculate values • Can you receive input from the keyboard and convert it to a numerical value	• What can the effect of colour depth and resolution have on the image? ***1.2.4 (Sound)*** • How can sound can be sampled and stored in digital form? • What effect does the sample rate, duration and bit depth have on sound? ***1.2.5*** • Why do we need compression? • What are the different types of compression?	→ Commenting ***2.3.2*** • Can you explain the purpose of testing? • What are the different types of testing? • Can you selecting and use suitable test data? • Are you able to refine an algorithm?	*earlier in the curriculum* **Revision on Operating Systems, utility software** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision Ethical, legal, cultural and environmental impact** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision on computational thinking, pseudocode, flowchart, trace tables** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision on searching and sorting algorithms** • *Refer back to keywords/questions previously discussed*

	• Can you use the functions AVERAGE, COUNTIF, and IF in a spreadsheet <u>Lesson 6</u>: • Can you use conditional formatting in a spreadsheet • Can you apply all of the spreadsheet skills covered in this unit	<u>Lesson 3</u>: • Can you use relational operators to form logical expressions • Can you use binary selection (if, else statements) to control the flow of program execution • Can you generate and use random integers <u>Lesson 4</u>: • Can you use multi-branch selection (if, elif, else statements) to control the flow of program execution • Can you describe how iteration (while statements) controls the flow of program execution <u>Lesson 5</u>:			*earlier in the curriculum*

		• Can you use iteration (while loops) to control the flow of program execution • Can you use variables as counters in iterative programs Lesson 6: • Can you combine iteration and selection to control the flow of program execution • Can you use Boolean variables as flags			
Summer 1	**Using Media – Gaining Support for a Cause** Lesson 1: • Can you select the most appropriate software to use to complete a task • Can you identify the key features of a word processor • Can you apply the key features of a word processor to format a document	**Developing for the Web** Lesson 1: • Can you describe what HTML is • Can you use HTML to structure static web pages • Can you modify HTML tags using inline styling to improve the	**Networks and Topologies** ***1.3.1*** • What are the different types of networks? • What factors affect the performance of networks? • What are the different roles	**Boolean Logic and Languages** ***2.4.1*** • Can you recognise the different symbols in logic diagrams? • Can you create, complete or edit logic diagrams and truth tables for given scenarios?	**Revision on sequence, selection and iteration. Data types, SQL** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision Boolean logic** • *Refer back to keywords/questions*

	• Can you evaluate formatting techniques to understand why we format documents <u>Lesson 2</u>: • Can you select appropriate images for a given context • Can you apply appropriate formatting techniques • Can you demonstrate an understanding of licensing issues involving online content by applying appropriate Creative Commons licences • Can you demonstrate the ability to credit the original source of an image <u>Lesson 3</u>: • Can you critique digital content for credibility • Can you apply techniques to identify whether or not a source is credible <u>Lesson 4</u>:	appearance of web pages <u>Lesson 2</u>: • Can you display images within a web page • Can you apply HTML tags to construct a web page structure from a provided design <u>Lesson 3</u>: ∉ Can you describe what Cascading Style Sheets (CSS) is ∉ Can you use CSS to style static web pages ∉ Can you assess the benefits of using CSS to style pages instead of in-line formatting <u>Lesson 4</u>:	of computers in a client-server and a peer-to-peer network? • Can you identify and describe what hardware needed to connect stand-alone computers into a local area network? • What do we mean by the phrase 'The Internet as a worldwide collection of computer networks? • Can you identify and explain Star and Mesh network topologies?	• Are you able to work with more than one gate in a logic diagram? ***2.5.1*** • Understand the differences between high- and low-level programming languages • Why do we need translators? • What are the differences, benefits and drawbacks of using a compiler or an interpreter?	*previously discussed earlier in the curriculum* **Revision of high and low level language** • *Refer back to keywords/questions previously discussed earlier in the curriculum* **Revision of IDE** • *Refer back to keywords/questions previously discussed earlier in the curriculum*

	• Can you apply referencing techniques and understand the concept of plagiarism • Can you evaluate online sources for use in own work	∉ Can you describe what a search engine is ∉ Can you explain how search engines 'crawl' through the World Wide Web and how they select and rank results ∉ Can you analyse how search engines select and rank results when searches are made			
Summer 2	**Using Media – Gaining Support for a Cause** <u>Lesson 5</u>: • Can you construct a blog using appropriate software • Can you create content for a blog based on credible sources • Can you apply referencing techniques that credit authors appropriately	**Developing for the Web** <u>Lesson 5</u>: • Can you use search technologies effectively • Can you discuss how the choice of search terms affects the information you find • Can you create hyperlinks to allow users to navigate	**Networks and Topologies** ***1.3.2*** • What are the different modes of connection to a network? • What are the different protocols we use on a network? • Can you explain the	**IDE** ***2.5.2*** • Can you identify each of the tools and facilities listed that can be used to help a programmer develop a program?	

	• Can you design the layout of the content to make it suitable for the audience <u>Lesson 6</u>: • Can you construct a blog using appropriate software • Can you create content for a blog based on credible sources • Can you apply referencing techniques that credit authors appropriately • Can you design the layout of the content to make it suitable for the audience	between multiple web pages <u>Lesson 6</u>: ∉ Can you implement navigation to complete a functioning website ∉ Can you complete summative assessment	concept of layers?		

COMPUTING KEY VOCABULARY					
	Year 7	Year 8	Year 9	Year 10	Year 11
Autumn 1	**Collaborating Online Respectfully** L1: Computing, password, secure. hazards, obama. L2: Email, recipient, trump, network. L3: Online, comments, community. L4: Cyberbullying, presentation software, slide deck L5: Audience L6: Audience.	**App Inventor** L1: Palette, Viewer, Components, Properties, Blocks, Emulator, QR Code. L2: TextToSpeech, Accelerometer, TextBox. L3: Canvas, FillParent, SpeedSetting. L4: ImageSprite, Variables, Procedures. L5: See lesson 1-4 key terms. L6: Resilience, Teamwork, Problem solving, Creativity, Less than expected progress, Expected progress, More than expected progress.	**Systems Architecture** L1: CPU, process, input, output L2: Fetch, Decode, Execute L3: ALU, CU, Cache, Registers L4: Memory, address bus, control bus, data bus L5: MDR, MAR, PC, Accumulator L6: Clock speed, cache, number of cores	**Algorithms** L1: Abstraction, decomposition L2: decomposing, computational thinking L3: inputs, processes, outputs, abstraction L4: structure diagram, process, loop, selection, function L5: pseudocode, instructions, create. Interpret, correct, complete, refine, syntax L6: Flowchart, symbols, instruction, line, process, subroutine, input, output, decision, terminator L7: reference language, high-level programming language, errors L8: Trace tables, circuits, logic, gates, symbols, Boolean L9: Searching, sorting, binary, linear,	**Wired and Wireless Networks** L1: Wired, Wireless, Protocols, Layers, Ethernet, Bluetooth L2: TCP/IP, HTTP, HTTPS, FTP, POP, IMAP, SMTP L3: Networks, Malware, Social Engineering, Brute Force Attack, Denial of Service, Data Interception, Data Theft, SQL Injection L4: Vulnerabilities, Penetration Testing, Anti-Malware, Firewalls, User Access Levels, Passwords, Encryption, Physical Security L5: Operating Systems, User Interface, Memory Management, Multi-Tasking, Peripheral, Drivers, User Management, File Management

				L10: Sorting, bubble, merge, insertion	L6: Utility Software, Encryption Software, Defragmentation, Data Compression
Autumn 2	**What are Computers** L1-3: Abacus, Algorithm, Colossus, Binary, Debugging. L4: Input, Output, peripheral, process, sensor. L5: Motherboard, Processor, Memory, Hard Disk Drive. L6&7: Binary, Denary, Machine Code, ASCII. L8: LAN, WAN, Wireless, Network, Topology.	**Animation** L1: Object, sphere, cone, add, move, rotate, scale, colour (material). L2: Keyframe, tweening, stop motion, object, animation, location, rotate, scale, timeline, parenting L3: Edit mode, scale, extrude, loop cut, face, edge, vertex L4: Proportional editing, knife tool, organic, subdivision L5: Render, lights, camera, focus, ray tracing L6: None.	**Memory & Storage** L1: Embedded system, function, process L2: Example L3: Primary storage, memory L4: RAM, ROM L5: RAM, ROM, L6: Virtual memory L7: Secondary storage, optical, magnetic, flash/solid state L8: Media, storage L9: capacity, speed, durability, portability, reliability, cost	**Programming Concepts** L1: Variables, constants, operators, inputs, outputs, assignments L2: Constructs, flow, iteration, sequence, selection L3: Arithmetic operators, addition, subtraction, multiplication, real division, integer division, remainder	**Preparation for PPE** L1: *Go back over key vocab terms* L2: *Go back over key vocab terms* L3: *Go back over key vocab terms* L4: *Go back over key vocab terms* **Ethical, Legal, Cultural and Environmental Impacts of Digital Technology** L1: Ethical, Legal, Cultural, Environmental, Privacy, Impact, Issues L2: Data Protection Act 2018, Computer Misuse Act 1990, Copyright Designs and Patents Act 1988, Software License, Open-Source, Proprietary, Legislation
Spring 1	**Scratch**	**Cybersecurity**	**Units of Data** L1: Nibble, byte, kilobyte,	**Programming Concepts**	**Revision** L1: *Refer back to keywords/questions*

	L1: Sequencing, subroutines, instructions, execute. L2: Sequencing, subroutines, instructions, execute. L3: Expressions, evaluate, conditions, selection, **If** statements, variables, sequencing, subroutines L4: Operators, logic, comparison, expressions, evaluate, conditions, selection, **If** statements, variables, sequencing, subroutines L5: Iteration, count-controlled, condition-controlled, debugging, variables, sequencing, subroutines L6: Sequencing, variables, conditions, selection, iteration	L1: Data, information, cybersecurity, cybercriminals, profiling, user behaviour, privacy policies, data protection, data subject, data portability, malware L2: Social engineering, phishing, blagging, shouldering, name generator attack, scam L3: Cyberthreats, hacking, ethical hacking, penetration testing, brute force attacks, script kiddies, DoS (denial of service), DDoS (distributed denial of service), Computer Misuse Act (1990) L4: Ransomware, malware, viruses, trojans, worms, adware, spyware, bots, botnet L5: Anti-malware, firewall, end-user authentication, folder permissions/privileges, botnet, trojans, biometrics, two-factor authentication (2FA), CAPTCHA L6: Blagging, ransomware, DDoS, brute force, virus, malware, hacking, spyware, adware, firewall, two-factor authentication (2FA), backups, CAPTCHA, Internet Service Provider (ISP), auto-updates	megabyte, gigabyte, terabyte, petabyte L2: Binary, converting L3: Data capacity L4: Denary, binary, convert L5: Binary, integers, overflow, denary, hexadecimal, addition	L4: Boolean operators, AND, OR, NOT L5: Data types, integer, real, Boolean, character, string, casting L6: Basic handling operators, open, read, write, close L7: Records, storage, data, SQL, search L8: Arrays, one-dimensional, two-dimensional L9: Sub-programs, functions, procedures, structured code, random number generator L10: Robust programs, defensive design, misuse, authentication, input validation, error L11: Maintainability, sub programs, naming, indentation, commenting	*previously discussed earlier in the curriculum* L2: *Refer back to keywords/questions previously discussed earlier in the curriculum* L3: *Refer back to keywords/questions previously discussed earlier in the curriculum* L4: *Refer back to keywords/questions previously discussed earlier in the curriculum* L5: *Refer back to keywords/questions previously discussed earlier in the curriculum* L6: *Refer back to keywords/questions previously discussed earlier in the curriculum* L7: *Refer back to keywords/questions previously discussed earlier in the curriculum*
Spring 2	**Modelling Data – Spreadsheets**	**Python**	**Units of Data** L6: Binary codes, character set	**Programming Concepts/Testing data:**	**Revision** L1: *Refer back to keywords/questions*

	L1: Data, cell, cell reference, row, column, range, select. L2: Drag handle, autofill, formula, cell reference L3: Formula, cell reference, autofill, data, information, source, primary source, secondary source L4: Chart, pie chart, bar chart, series, axis/axes, labels, headers, function, maximum, minimum L5: Header, filter, average, criterion/criteria, condition, conditional formatting L6: Conditional formatting	L1: Algorithm, program, programming language, program translation and execution, interpreter, programming environment, input, output, variables, assignment L2: Input, output, variables, operators, expressions, integer and string type, execution, walk-through L3: Selection, relational (or comparison) operators, logical (or Boolean) expressions, conditions, randomness, execution, walk-through L4: Selection, relational (or comparison) operators, logical (or Boolean) expressions, conditions, randomness, execution, walk-through L5: Iteration, selection, conditions, counting, execution, walk-through L6: Iteration, selection, conditions, Boolean (or logical) operators and expressions, counting, flags	L7: Character set, ASCII, UNICODE L8: Pixels, binary L9: Metadata, colour depth, resolution, size L10: Sample, storage, digital L11: Sample rate, duration, bit depth, playback quality	L1: Purpose, types of testing, iterative, final, terminal L2: Logical, syntax, error, handling L3: Test data, normal, boundary, invalid, erroneous	*previously discussed earlier in the curriculum* L2: *Refer back to keywords/questions previously discussed earlier in the curriculum* L3: *Refer back to keywords/questions previously discussed earlier in the curriculum* L4: *Refer back to keywords/questions previously discussed earlier in the curriculum* L5: *Refer back to keywords/questions previously discussed earlier in the curriculum* L6: *Refer back to keywords/questions previously discussed earlier in the curriculum*
Summer 1	**Using Media – Gaining Support for a Cause** L1: Application software, word processor, formatting, fonts, icons	**Developing for the Web** L1: HTML, tags, formatting L2: Image, tag, attribute, directory, render	**Networks and Topologies** L1: Compression, lossy, lossless L2: LAN, WAN	**Boolean Logic and Languages** L1: Logic diagrams, AND, OR, NOT, truth tables, Boolean operators	**Revision** L1: *Refer back to keywords/questions previously discussed earlier in the curriculum*

	L2: Word processor, appropriate, copyright, licensing, Creative Commons, text wrapping, cropping, recolouring L3: Credibility, source, audience L4: Plagiarism, referencing, citation, paraphrase, blog	L3: CSS, style, formatting, head, body, attribute L4: Search term, keywords, hyperlink, crawler, spider, index, query, ranking	L3: Factors, Performance	L2: Logical operators, truth tables L3: characteristics, languages, levels, high-level languages L4: Low-level languages, translators L5: Compiler, interpreter	L2: *Refer back to keywords/questions previously discussed earlier in the curriculum* L3: *Refer back to keywords/questions previously discussed earlier in the curriculum* L4: *Refer back to keywords/questions previously discussed earlier in the curriculum*
Summer 2	**Using Media – Gaining Support for a Cause** L5: Blog L6: Blog, assessment criteria, feedback, summative	**Developing for the Web** L5: Connective, clause, operator, AND, OR, NOT, quote search, hyperlink, website L6: Navigation, hyperlinks	**Networks and Topologies** L4: Client-server, peer-to-peer L5: hardware, LAN, router, switch, WAP, NIC, transmission media L6: Internet, DNS, hosting, IP adress, MAC address L7: Cloud, web-server, clients L8: star, mesh bus, topologies	**IDE** L1: Tools, facilities, editor, error, diagnostic L2: Runtime, translators	

Nuture Strategy	**Computing Nurture**
Students learning is understood developmentally	Teachers have completed SEN Provision Maps for each class that they teach in the department. This is saved on Pedagogy platform for all teachers in the

	department to access. Links to SEN register, My Profiles. Examples of differentiation are using screen filters, enlarge worksheets if needed, coloured paper, writing frames for exam questions, allow students to type answers rather than write.
The classroom offers safe base	In the Computing department we have high level of expectations with regards to behaviour and engagement in lessons. We follow the Scalby school behaviour for learning system (outline d on P8 of student planner), have a recognised Matrix and seek support from Active Patrol SLT. Pupils feel safe in the predictability of whole school standards being upheld by all staff across the department. We expect all students to be the best they can be.
The importance of nuture for the development of well being	Year 7 Digital Literacy and Year 8 E-safety
Language is a vital means of communication	Whole school focus on vocab in Computing we teach topic specific keywords at the start of a new topic.
All behaviour is communication	As part of Scalby School behaviour policy C3's and C4's are recorded. This information is monitored and followed up via the Pastoral Protocol. In the classroom teaching staff and assistant teachers are aware of the wellbeing of students. Teachers understand that behaviour can be an indicator that a student is in need of additional support. Behaviours which are a cause for concern are raised with Pastoral or SEND teams so the correct intervention and support can be put in place. These include learning concerns which are raised as an SEN short note which trigger investigation into the need for exam access arrangements.

The importance of transitions in childrens lives	Involved in year 6 transition day, transition to KS4 from KS3 through a raise of SOL, support post 16 with careers awareness within the structure of lessons in all curriculum areas.