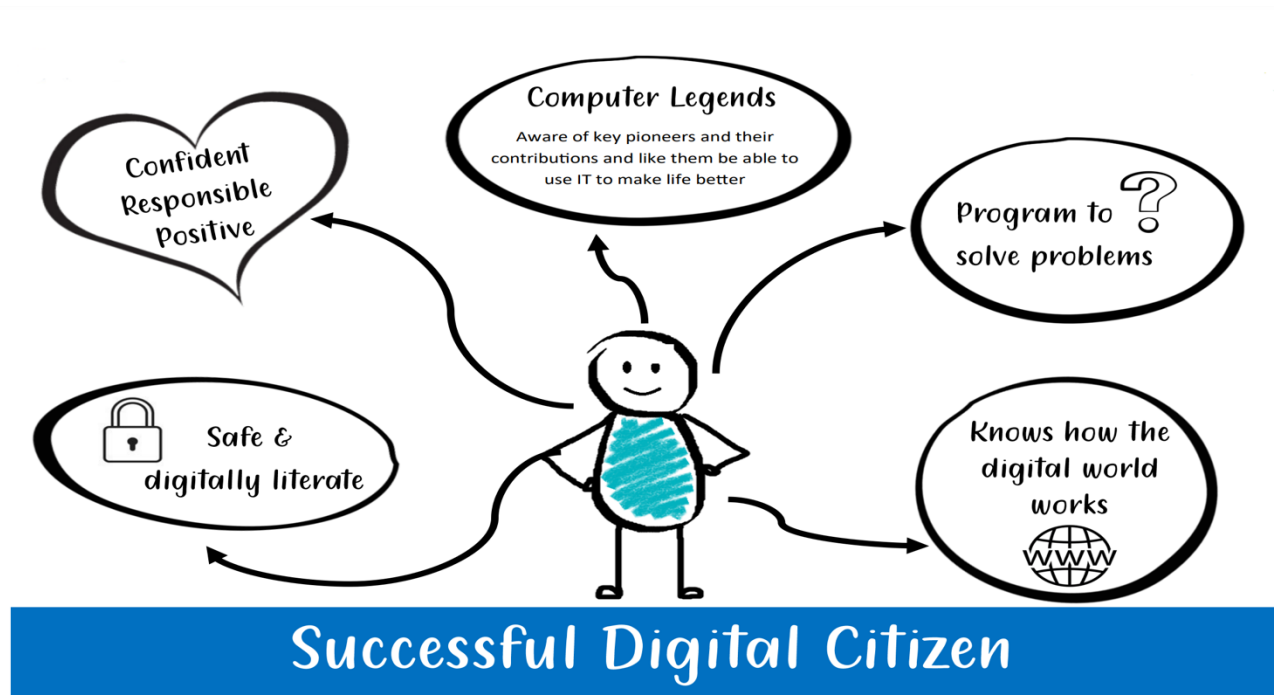


Computing Curriculum at Whiteways Primary School



What do we want for our pupils?

Within an ever changing and technological world, Whiteways Primary School understands and values the importance of teaching Computing from a young age. We acknowledge that future generations will rely heavily on their computational confidence and digital skills in order to support their progress within their chosen career paths.

Therefore, it is our school's aim to equip children with the relevant skills and knowledge that is required to understand the three core areas of Computing (**Computer Science** -the understanding of coding and programming across a range of physical devices and digital resources, **Information Technology** - the range of skills required to operate and manipulate specific programs, systems, and content **and Digital Literacy** - the knowledge required to use technology safely and to evaluate and react to any potential risks of the online/digital world) and to offer a broad and balanced approach to providing quality first teaching of this subject. Computing is an integral part to a child's education and everyday life.

We deploy teaching strategies through the Purple Mash scheme of work that promotes resilience, independence, critical thinking, communication skills and problem solving. We intend on delivering a broad curriculum which encourages a love of learning for children within a progressive sequence. We want our pupils to understand that there is always a choice when accessing technology, and as a school, in particular with 'social media' - we aim to model positive use. We understand that preventative methods of online/ social media misuse can be addressed through education, embedded within our school values: Be Kind, Be Safe, Celebrate Differences, Have your Say, Try your best and Be Team Players.

Assessment in Computing

We encourage our children to enjoy and value the curriculum that we deliver. Fundamentally, we ask the 'why' and not just the 'how' to explore the depth of each objective within a stimulating environment that encourages children to discuss, reflect and appreciate the impact that Computing has on their learning, development and wellbeing.

Within Computing, we encourage a creative and collaborative environment in which pupils can learn to express and challenge themselves. The success of the curriculum itself will be assessed via the analysis of yearly progress data, conducting regular pupil voice sessions, lesson observations and skills audits. This will then inform future adaptations of the schemes of work and help to ensure that progression is evident throughout school.

Computing in the Foundation Stage

We recognise the rapidly changing world of computing and the role technology plays in our media-rich environment. It is important in the foundation stage to give children a broad, play-based experience of computing in a range of contexts, including outdoor play. Computing is not just about computers. By carefully planning our environment to reflect the world in which we live, children will, through play, gain experience and an understanding of computing.

Technology in the Early Years can mean:

- taking a photograph with a camera or tablet
- searching for information on the internet
- playing games on the interactive whiteboard
- exploring an old typewriter or other mechanical toys
- using a Beebot
- watching a video clip
- listening to music

Allowing children the opportunity to explore technology in this carefree and often child-led way, means that not only will they develop a familiarity with equipment and vocabulary but they will have a strong start in Key Stage 1 Computing and all that it demands.

Scheme overview

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Aut1 (8)7wks	Online safety 3wks Sorting 2wks Pictograms (2count) 3wks	Online safety 3wks Spreadsheets (2calculate) 4wks	Online safety 3wks Spreadsheets (2calculate) 3wks	Online safety 3wks Logo (2logo) 4wks	Online safety 3wks Databases (2investigate) 4wks	Online safety 3wks Blogging (2blog) 4wks
Aut2 7wks	Lego builders 3wks Maze explorers (2go) 3wks	Spreadsheets 4wks Making music (2 sequence) 2wks	Touch typing (2type) 4wks Databases (2question) 2wks	Spreadsheets (2calculate) 6wks	Spreadsheets (2calculate) 6wks	Quizzing (2quiz) 6wks
Spr1 6wks	Animated story books (2create a story) 5wks Safer internet day 7 th Feb	Questioning (2question, 2 investigate) 5 wks Safer internet day 7 th Feb	Email safety (2email) 5 wks Safer internet day 7 th Feb	Writing for different audiences 5wks Safer internet day 7 th Feb	Game creator (2DIY 3D) 5wks Safer internet day 7 th Feb	Spreadsheets (2calculate) 5wks* Safer internet day 7 th Feb
Spr2 6wks	Coding (2code) 6wks	Coding (2code) 5wks Effective searching 2wks	Coding (2code) 6wks	Coding (2code) 6wks	Coding (2code) 6wks	Coding (2code) 6wks
Sum1 6wks	Online safety recap 3wks Spreadsheets (2calculate) 3wks	Online safety recap 2wks Presenting ideas 4wks	Simulation (2simulate) 3wks Graphing (2graph) 3wks	Animation (2animate) 3wks Searching 3wks	3D modelling (2design and make) 3wks Concept maps 3wks	Online recap 1wk Text adventures 5wks
Sum2 7wks	Technology outside school	Creating pictures (2paint) 5wks	Online safety recap 1wk Presenting 6wks	Online recap 1wk Hardware 2wks Music (Busy beats)4wks	Online recap 1wk Hardware 6wks	Networks 3wks Binary 4wks

Online safety: using purple mash scheme.

Safer internet day: Resources to be shared

Online recap: Resources to be shared

Coding training to come in September

*There is a higher spreadsheet unit using Microsoft: excel if needed.

(2code): the purple mash program which the unit is based on. Where no program suggested, Microsoft power point, words, internet search engines etc can be used.

Year 1

T1.1 – Unit 1.1 - Online Safety	T1.2 – Unit 1.4 - Lego Builders	T2.1 - Unit 1.6 - Animated Stories	T2.2 - Unit 1.7 - Coding	T3.1 – Unit 1.1 - Online Safety (Recap)	T3.2 - Unit 1.9 - Technology Outside School
Unit 1.2 - Sorting & Grouping	Unit 1.5 - Maze Explorers			Unit 1.8 - Spreadsheets	
Unit 1.3 - Pictograms					
Prior Knowledge:					
National Curriculum Objective and Computing Strand					
Digital Literacy Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs	Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Digital Literacy Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Digital Literacy Recognise common uses of information technology beyond school

Year 2

T1.1 – Unit 2.2 - Online Safety	T1.2 – Unit 2.1 - Coding Unit 2.5 - Effective Searching	T2.1 - Unit 2.4 - Questioning	T2.2 – Unit 2.3 - Spreadsheets Unit 2.7 - Making Music	T3.1 – Unit 2.2 - Online Safety (recap) Unit 2.8 - Presenting Ideas	T3.2 - Unit 2.6 - Creating Pictures
Prior Knowledge: (YEAR 1) Unit 1.1 - Online Safety • Safe logins • Concept of privacy • Concept of ownership • The need to logout Unit 1.9 - Technology Outside School • Developing ideas about the concept of technology that we are surrounded by and its purpose	Prior Knowledge: (YEAR 1) Unit 1.4 - Lego Builders • Algorithms • Logical decision making • Sequencing instructions • Following instruction Unit 1.7 – Coding • Introducing block coding • Objects and actions • Events (Click event, sound output) • Executing a program • Design view: Planning Unit 1.5 - Maze Explorers Coding a 'turtle'•Creating programs using sequencing and repeat•Visual use of the Logo programming language•Program logic and structure Unit 1.1 - Online Safety •Safe logins•Using Purple Mash search functionality Unit 1.9 - Technology Outside School •Developing ideas about the concept of technology that we are surrounded by and its purpose	Prior Knowledge: (YEAR 1) Unit 1.2 - Sorting & Grouping sorting data according to criteria Unit 1.3 - Pictograms Collecting and presenting data in a picture format	Prior Knowledge: (YEAR 1) Unit 1.8 - Spreadsheets Introduce 2Calculate•Spreadsheet navigation•Adding images•Vocab: cell, column, row Unit 1.3 - Pictograms What is data?•Representing data Unit 1.6 - Animated Stories •Adding simple sound effects to stories in 2Create a Story	Prior Knowledge: (YEAR 1) Unit 1.1 - Online Safety Safe logins•Concept of privacy•Concept of ownership•The need to logout Unit 1.9 - Technology Outside School Developing ideas about the concept of technology that we are surrounded by and its purpose Unit 1.6 - Animated Stories Creating text and the use of illustrations•Genre: animated picture book	Prior Knowledge: (YEAR 1) Unit 1.6 - Animated Stories •2Create a Story: Painting tool.•Animating images using built in effects•Concept of background (static) and foreground (can move)
National Curriculum Objective and Computing Strand					
Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that	Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that	Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that	Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content

programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs Digital Literacy Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content Digital Literacy Recognise common uses of information technology beyond school		Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs	programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs Digital Literacy Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content	
---	--	--	--	--	--

Year 3

T1.1 Online safety (Unit 3.2) Spreadsheets (Unit 3.3)	T1.2 Coding (Unit 3.1)	T2.1 Email (Unit 3.5)	T2.2 Touch typing (Unit 3.4) Branching Databases (Unit 3.6)	T3.1 Simulation (Unit 3.7) Graphing (Unit 3.8)	T3.2 Presenting (Unit 3.9)
Prior Knowledge (Unit 2.2 & 2.5) • Share to a display board • Approval process • Sharing online • Email simulations • emotional impact of communications • digital footprint • Search engine • Digital footprint • Privacy (Unit 2.3 & Unit 2.4) • Copying and pasting • Totalling tools • Addition • Table layout • Block graph • Ways to represent data • Pictograms (2Count) • Binary trees (2Question) • Databases (2Investigate)	Prior Knowledge (Unit 2.1 & 2.4) • Algorithms • Collision detection • Timers • Object types • Buttons • Debugging • Logical decision processing • Forward planning to achieve a solution	Prior Knowledge (Unit 2.2 & 2.5) • Sharing online • Email simulations • Emotional impact of communications • Digital footprint • Exploration of what the Internet is • Accessing the World Wide Web • Digital Footprint • Searching and sharing	Prior Knowledge (Unit 2.5 & 2.8) • Efficient use of a search engine • Leaflet creation • Presenting ideas in a variety of styles including through typed text (Unit 2.3 & 2.4) • Use of 2Calculate to collect data and produce a graph • Enquiry into different data handling tools • Use of questioning to separate and group data	Prior Knowledge (Unit 2.1) • Algorithms • Collision detection - simulating air traffic control • Object types • Debugging (Unit 2.3, 2.4, 3.3 & 3.6) • Use of 2Calculate to collect data and produce a graph • Enquiry into different data handling tools • Use of questioning to separate and group data • Collecting data • Producing a graph • Sorting and interrogating data	Prior Knowledge (Unit 2.6, 2.8 & 3.4) • Presenting ideas in art form • 2Paint a Picture: art effects, collage effects • Creating work for a variety of purposes and different genres • Presenting the same information in different styles: animated story, quiz based on a story, concept map of a story, writing template • Keyboard skills • Typing fluency
National Curriculum Objective and Computing Strand					

(Unit 3.2) Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. (Unit 3.3) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	(Unit 3.1) Computer Science Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. 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	(Unit 3.5) Computer Science 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. Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	(Unit 3.4) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (Unit 3.6) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	(Unit 3.7) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (Unit 3.8) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	(Unit 3.9) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
--	--	--	---	---	---

Year 4

T1.1 Online safety (Unit 4.2) Logo (Unit 4.5)	T1.2 Coding (Unit 4.1)	T2.1 Writing for different audiences (Unit 4.4)	T2.2 Spreadsheets (Unit 4.3)	T3.1 Animation (Unit 4.6) Effective Searching (Unit 4.7)	T3.2 Hardware Investigators (Unit 4.8) Music (Unit 4.9)
Prior Knowledge (Unit 3.2 & 3.5) • Good Passwords and password privacy • Communication methods • Shared blog • Evaluating communications • email safety • sharing images - safety • not meeting • attachments • Reliability of information and spoof websites • appropriate ratings • emotional effects • Cyberbullying • reporting problems (Unit 3.1 & 3.6) • Familiarity with a code environment • Logical planning of sequences • Debugging skills • Logical decision processing • Forward planning to achieve a solution	Prior Knowledge (Unit 3.1 & 3.6) • Flowcharts • Timers • Repeat • Code, test, debug process • Logical decision processing • Modelling selection on a binary model	Prior Knowledge (Unit 3.4, 3.5, 3.7 & 3.9) • Keyboard skills • Typing fluency • Considering communication style • Email simulations • Use of 2Simulate • Familiarity with two simulations: Locked Out and The Dark Side of Elpmis • Use of Email simulations • Use of either MS PowerPoint or Google Slides to learn about good presentations: both content and delivery	Prior Knowledge (Unit 3.3 & 3.8) • Pie charts and Bar graphs • Boolean comparison tools (<=>) • Spin tool • Advanced mode • Cell references • Data representation in 2Graph • Use software to investigate data	Prior Knowledge (Unit 2.6) • 2Paint a Picture: art effects, collage effects (Unit 3.2) • Reliability of information and spoof websites • Appropriate ratings • Reporting problems	Prior Knowledge (Unit 3.5) • Understanding of the 2-way communication technologies using algorithms that run of the hardware (Unit 27) • Digitally creating music and sound effects on 2Sequence
National Curriculum Objective and Computing Strand					

(Unit 4.2) Computer Science 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. Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. (Unit 4.5) Computer Science Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. 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	(Unit 4.1) Computer Science Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. 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 Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	(Unit 4.4) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	(Unit 4.3) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	(Unit 4.6) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (Unit 4.7) Computer Science 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. Information Technology Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	(Unit 4.8) Computer Science 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 (Unit 4.9) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
--	--	---	---	--	--

Year 5

T1.1 Online Safety (Unit 5.2) Databases (Unit 5.4)	T1.2 Coding (Unit 5.1)	T2.1 Game Creator (Unit 5.5)	T2.2 Spreadsheets (Unit 5.3)	T3.1 3D Modelling (Unit 5.6) Concept Maps (Unit 5.7)	T3.2 MS Word (Unit 5.8)
Prior Knowledge Online Safety (Year 4) • Phishing • Digital footprint • Malware and viruses • Plagiarism • Screen time • Reliable sources • Search algorithms - impact on what you see Databases (Year 4) • Inputting and Interrogating data • Presenting data through line graphs	Prior Knowledge (Year 4) • Code, test, debug process • IF statements • Repeat Until and IF/ ELSE Statements • Number Variables • Text-based coding • Utilize understanding of coding structures • Sequencing and animation in logical steps	Prior Knowledge (Year 4) • Create a stop motion animation using 2Animate • Use of sounds, backgrounds and effects • Electronically compose a themed piece of music on Busy Beats	Prior Knowledge (Year 4) • Formula wizard • Cell formatting • Timer, random number and spin buttons • Budget planner sheet • Line graphs	Prior Knowledge (Year 4) • Create a stop motion animation using 2Animate • Use of art tools to create backgrounds and effects (Year 5) • Themed art • Art in 3D • Animating 3D characters • Understanding importance of text formatting and organisation • Transferring information from a concept map into a written report	Prior Knowledge (Year 4) • Discussion of effectiveness of different written material. • Opportunities to type in a variety of styles • Efficient structure of search queries • Answering written questions (Year 5) • Using concept maps to make visual connections • Creating and presenting an information text
National Curriculum Objective and Computing Strand					
(Unit 5.2) Computer Science 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. Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	(Unit 5.1) Computer Science Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. 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	(Unit 5.5) Computer Science Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing,	(Unit 5.3) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	(Unit 5.6 & 5.7) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	(Unit 5.8) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

(Unit 5.4) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	evaluating and presenting data and information.			
--	---	--	--	--	--

Year 6

T1.1 Online Safety (Unit 6.2) Blogging (Unit 6.4)	T1.2 Coding (Unit 6.1)	T2.1 Spreadsheets (Unit 6.3)	T2.2 Quizzing (Unit 6.7)	T3.1 Text Adventures (Unit 6.5)	T3.2 Networks (Unit 6.6) Binary
Prior Knowledge (Unit 5.2 & 5.8) • Responsibility to others when sharing • Sources of support • SMART rules • Sharing passwords • Use of images • Plagiarism • Citing sources • Image manipulation • Citing sources • Searching • Reliability (Unit 5.6 & Unit 5.8) • Responsibility to others when sharing • Sources of support • SMART rules • Sharing passwords • Image manipulation • Citing sources • Searching • Reliability • Use of images • Plagiarism • Citing sources	Prior Knowledge (Unit 5.1) • Efficient Coding • Simulating a Physical System • Decomposition and Abstraction • Friction and Functions • - Introducing Strings • Text Variables and Concatenation	Prior Knowledge (Unit 5.3 & 5.4) • Converting measures • - Count tool • Formulae • Variables in formulae • - Event planning • Data representation in 2Investigate • Creating and interrogating data • Use of filter, sort and search	Prior Knowledge (Unit 5.4 & 5.5) • Creating and searching a database for information • Wording of questions to be effectively answered by searching a database • Creating game environment • Writing instructions • Considering playability and challenge for audience	Prior Knowledge (Unit 5.1, 5.5 & 5.7) • Familiarity with the functionality of 2Code • Planning and designing for a logical outcome. • Game Design planning • - Refining and reviewing games • Use of 2Connect in a variety of ways for different purposes (Unit 6.1) • Familiarity with the functionality of 2Code • Planning and designing for a logical outcome. • Debugging	Prior Knowledge (Unit 6.4) • Using device functions for 2-way communication via the World Wide Web (Unit 5.1 & Unit 6.1) • Efficient Coding • Simulating a Physical System • Decomposition and Abstraction • Friction and Functions • - Introducing Strings • Text Variables and Concatenation • Complex programs • Using Functions • Flowcharts and Control Simulations • User Input
National Curriculum Objective and Computing Strand					
(Unit 6.2) Information Technology Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Computer Science Understand computer networks, including the Internet; how they can provide multiple services,	(Unit 6.1) Computer Science Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work	(Unit 6.3) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	(Unit 6.7) Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	(Unit 6.5) Computer Science Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work	(Unit 6.4) Computer Science 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 Information Technology

such as the World Wide Web; and the opportunities they offer for communication and collaboration. Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*. (Unit 6.4) Computer Science 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 Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of	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 Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information			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 Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*. (Unit 6.8) Computer Science Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Information Technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
---	--	--	--	--	--

ways to report concerns about content and contact*.					
--	--	--	--	--	--

--	--	--	--	--	--