

Whole-school Curriculum subject plan Computing

	Compating						
	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2	
YEAR 1	Online Safety - Unit 1.1	Picograms Unit 1.3	Lego builders Unit 1.4	Animated Story Books Unit 1.6	Coding Unit 1.7	Technology outside of school Unit 1.9	
	Grouping and sorting Unit 1.2		Maze explorers Unit 1.5		Spreadsheets Unit 1.8		
Component knowledge and skills for Year 1 Information technology Computer science Digital literacy.	 I can log in safely. I can keep my login information safe. I can save my work in a safe place such as 'My Work' folder. I can sort sound, pictures and text. I can add sound, picture and text to a program such as 2Create a story. I can find my work. I can change content on a file such as text, sound and images. I can explain that an algorithm is a set of instructions. I know that an algorithm written for a computer Is called a program. I can work out what is wrong when the steps are out of order in instructions. I can try and fix my code if it isn't working properly. I can make good guesses of what is going to happen in a program. I can say what technology is 						
YEAR 2	 I can say wh Coding Unit 2.1 	at examples of techi Spreadsheets Unit 2.3	Questioning Unit 2.4	Creating pictures Unit 2.6	Making Music Unit 2.7	Presenting ideas Unit 2.8	
	Online Safety Unit 2.2		Effective searching Unit 2.5				
Component knowledge and skills for Year 2 Information technology Computer science Digital literacy.	 I can explain an algorithm is a set of instructions to complete a task. I know I need to carefully plan my algorithm so it will work when I make it into a code. I can design a simple program using 2Code. I can find and correct some errors in my program. I know the consequences of not searching online safely. I can share work and communicate electronically- for example using 2Email. I can report unkind behaviour and things that upset me online, to a trust adult. I can see where technology is used at school. I can organise data for example, using a database such as 2Investigate. I can find data using specific searches. I can use several programs to organise information. (2Questions or 2Calculate) I can edit digital data such as in music composition software like 2Sequence. I can name, save and find my work. I can include photos, texts and sound in my creations. 						
YEAR 3	Coding Unit 3.1 Online Safety	Spreadsheets Unit 3.3 Touch typing	Email Unit 3.5	Branching Databases Unit 3.6	Simulations Unit 3.7	Graphing Unit 3.8 Using Microsoft	
Component knowledge and skills for Year 3 • Information technology • Computer science • Digital literacy.	Unit 3.2 Unit 3.4 PowerPoint Unit 3.9 I can make a real-life situation into an algorithm for a program. I can design an algorithm carefully thinking about what I want to do and how I can turn it into code. I can identify an error in my program and fix it. I can experiment with timers in my programs. I can identify the difference in using between the effect of a timer or repeat command in my code. I can identify 'If' statements, repetition and variables. I can read programs with several steps and predict what it will do. I can create a secure password. I can explain the importance of having a secure password and not sharing it with others. I can explain the negative consequences of not keeping passwords safe and secure. I understand the importance of keeping safe online and behaving respectfully. I can report unacceptable content and contact online in more than one way to a trusted adult.						

• I can collect data and input it into software.

I can analyse data using features within software to help such as formulae in 2Calculate.
U can present data and information using different software such as 2Question or 2Graph.

I can consider what the most appropriate software to use when given a task by my teacher. I can create a purposeful content and attach this to an email. I can identify different ways that the internet can be used for communication. I can use email such as 2Email to respond to others appropriately and attach files. I can carry our searches to find digital content on a range of online systems, such as within purple mash or on an internet search engine. **Effective Searching** Coding **Spreadsheets** Writing for Logo **Making Music** YEAR 4 **Unit 4.1 Unit 4.9 Unit 4.3** different Unit 4.5 **Unit 4.7** audiences Online Safety Unit 4.4 Animation Hardware Investigators Unit 4.6 **Unit 4.2 Unit 4.8** Component I can turn a real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code. knowledge and I can use repetition in my code. For example, using a loop that continues until a condition is met such as the correct answers being skills for Year 4 I can use timers within my program designs more accurately to create repetition effects. I can use selection in my programming. Information I can use variables within my program and know how to change the value of variables. technology I can use the user inputs and output features within my program, such as 'Print to screen.' Computer I can identify errors in my code by using different methods, such as steeping through lines of code and fixing them. science I can read programs that contain several steps and predict the outcomes with increasing accuracy. Digital I have a good understanding of the online safety rules we learn at school. literacy. I can demonstrate how to use different online technologies. I can demonstrate how to use a few different online services safely. I know I have a right to privacy both on and offline. I recognise that my wellbeing can be affected by how I use technology. I can report with ease any concerns with content and contact online and know immediate strategies to keep safe. I understand the purpose of a search engine and the main features within it. I can look for information on a webpage and make predictions about the accuracy of information contained within it. I can create and improve my solutions to a problem based on feedback. I can review solutions that others have created, using a checklist of criteria. I can work collaboratively to create content and solutions. I can share digital content using a variety of applications such as 2Blog, 2Email and display boards. I recognise the main component parts of hardware which allow computers to join and form a network. Coding Spreadsheets Databases **Game Creator** 3D Modelling Concept Maps YEAR 5 **Unit 5.3** Unit 5.1 Unit 5.4 Unit 5.5 **Unit 5.6** Unit 5.7 **Online Safety** Microsoft Word **Unit 5.2** Unit 5.8 Component I can make more complex real-life problems into algorithms for a program. knowledge and I can test and de-bug my programs as I work. skills for Year 5 I can convert algorithms that contain sequence, selection and repetition into code that works. I can use sequence, selection, repetition and some other coding structures in my code. Information I can organise my code carefully for example, naming variables and using tabs. I know this will help me debug more efficiently. technology I can logical methods to identify the cause of any bug with support to identify the specific line of code. Computer I know the important of computer networks and how they help solve problems and enhance communication. science I recognise the main dangers that can be perpetuated via computer networks. Digital I can explain what personal information is and know strategies for keeping this safe. literacy. I can use the most appropriate form of online communication according to the digital content. I can search precisely when using a search engine, knowing I can add additional words or removing word to help find better results. I can explain in detail how accurate, safe and reliable the content is on the website. I can make appropriate improvements to digital work I have created. I can comment on how successful a digital solution is that I have created. I can work collaboratively with other creating solutions to problems using appropriate software. I can use collaboratively modes to work with others and share it. I have a secure knowledge of online safety rules taught at school. I can demonstrate the safe and respectful use of different online technologies and online services. I always relate appropriate online behaviour to my right to have personal privacy. I know how not let my mental wellbeing or others be affected by use of online technologies and services. **Spreadsheets** Blogging **Text Adventures Networks Understanding Binary** YEAR 6 Unit 6.1 Unit 6.4 Unit 6.5 Unit 6.6 Unit 6.8 **Unit 6.3** Online safety Quizzing Microsoft Excel Unit 6.2 Unit 6.7 **Unit 6.9**

Component knowledge and skills for Year 6

- Information technology
- Computer science
- Digital literacy.
- I can turn a complex programming task into an algorithm.
- I can identify the important aspects of a programming task.
- I can decompose important aspects of a programming task in a logical way, identifying appropriate coding structures that would work.
- I can test and debug my program as I work on it and use logical methods to identify a cause of a bug.
- I can identify a specific line of code that is causing a problem in my program and attempt to fix it.
- I can translate algorithms that include sequence, selection and repetition into code and nest these structures with each other.
- I can use input and outputs within my coded programs such as sound, movement and buttons and represent the state of an object.
- I can interpret a program in parts and can make logical attempts to put the separate parts together in an algorithm to explain the program as a whole.
- I can explain the difference between the internet and the World Wide Web.
- I can explain what a WAN and LAN is and describe the process of how access to the internet in school is possible.
- I can demonstrate safe and respectful use of a range of different technologies and online services.
- I can identify more discrete inappropriate behaviours online. For example, someone who may be trying to groom me or someone else.
- I can use critical thinking to help me stay safe online.
- I know the value of protecting my privacy and others online.
- I can use filters when searching for digital content.
- I can explain in detail how accurate and reliable a webpage and its content is.
- I can compare a range of digital content sources and rate them in terms of content quality and accuracy.
- I can consider the intended audience carefully when I design and make digital content.
- I can design and create my own online blogs.
- I can use criteria to evaluate the quality of my own and others digital solutions, suggesting refinements.