

	Year 1						Year 2						Year 3						Year 4						Year 5						Year 6					
	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2
Computer Science	To understand that an algorithm is a set of instructions used to solve a problem or achieve an objective.						Explain that an algorithm is a set of instructions to complete a task .						Turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts.						When turning a real-life situation into an algorithm, the Children's design shows that they are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition.						Attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts.						Able to turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs.					
	Know that an algorithm written for a computer is called a program.						When designing simple programs show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.						Their design shows that they are thinking of the desired task and how this translates into code. Identify an error within their program that prevents it following the desired algorithm and then fix it.						Make more intuitive attempts to debug their own programs.						Test and debug their programs as they go and use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code .						Test and debug their program as they go and use logical methods to identify the cause of bugs, demonstrating a systematic approach to try to identify a particular line of code causing a problem .					
	Work out what is wrong with a simple algorithm when the steps are out of order, e.g. The Wrong Sandwich in purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity .						Create a simple program that achieves a specific purpose. They can also identify and correct some errors, e.g. Debug Challenges: Chimp .						To demonstrate the ability to design and code a program that follows a simple sequence. They experiment with timers to achieve repetition effects in their programs.						To use timers to achieve repetition effects are becoming more logical and are integrated into their program designs.						Begin to translate algorithms that include sequence, selection and repetition into code with increasing ease and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures.						Translate algorithms that include sequence, selection and repetition into code and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures, including nesting structures within each other.					
	To know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g Bubbles activity in 2Code .						Use of program designs display a growing awareness of the need for logical, programmable steps.						Beginning to understand the difference in the effect of using a timer command rather than a repeat command when creating repetition effects.						Understand 'if statements' for selection and attempt to combine these with other coding structures including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information while a program is executing, they are able to use and manipulate the value of variables.						Combining sequence, selection and repetition with other coding structures to achieve their algorithm design .						Coding displays an improving understanding of variables in coding, outputs such as sound and movement, inputs from the user of the program such as button clicks and the value of functions .					

Computer Science	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2
													To understand how variables can be used to store information while a program is executing.						Make use of user inputs and outputs such as 'print to screen'. e.g. 2Code .																	
	When looking at a program, read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. , for example, interpret where the turtle in 2Go challenges will end up at the end of the program.						Identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.						Begin to show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'if' statements. Make attempts to 'step through' code in order to identify errors in algorithms and can correct this.						Show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'if' statements, repetition and variables. They can trace code and use step-through methods to identify errors in code and make logical attempts to correct this. e.g. traffic light algorithm in 2Code .						When coding, beginning to think about their code structure in terms of the ability to debug and interpret the code later, e.g. the use of tabs to organise code and the naming of variables .						To are able to interpret a program in parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole .					
													In programs such as Logo, begin to 'read' programs with several steps and predict the outcome.						In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.																	
													List a range of ways that the internet can be used to provide different methods of communication. They can use some of these methods of communication, e.g. being able to open, respond to and attach files to emails using 2Email .						To recognise the main component parts of hardware which allow computers to join and form a network.						Understand the value of computer networks but are also aware of the main dangers. They recognise what personal information is and can explain how this can be kept safe.						Understand and explain in some depth the difference between the internet and the World Wide Web.					
													They can describe appropriate email conventions when communicating in this way.						Understand the online safety implications associated with the ways the internet can be used to provide different methods of communication is improving.						To can select the most appropriate form of online communications contingent on audience and digital content, e.g. 2Blog, 2Email, Display Boards .						. To know what a WAN and LAN are and can describe how they access the internet in school					

Information Technology	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2
	Sort, collate, edit and store simple digital content e.g. name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count..						Demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches						Carry out simple searches to retrieve digital content. They understand that to do this, they are connecting to the internet and using a search engine such as Purple Mash search or internet-wide search engines.						Understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level.						Search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains.						Readily apply filters when searching for digital content. They are able to explain in detail how credible a webpage is and the information it contains. They compare a range of digital content sources and are able to rate them in terms of content quality and accuracy.					
	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2
	Edit more complex digital data such as music compositions within 2Sequence .						Able to make improvements to digital solutions based on feedback.						To be able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code						To use critical thinking skills in everyday use of online communication.																	
	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2
Become confident when creating, naming, saving and retrieving content.						Collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question), using software such as 2Graph .						To make informed software choices when presenting information and data.						They objectively review solutions from others. Able to collaboratively create content and solutions using digital features within software such as collaborative mode.						To make clear connections to the audience when designing and creating digital content. To design and create their own blogs to become a content creator on the internet, e.g. 2Blog .												
A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	
Use a range of media in their digital content including photos, text and sound.						Consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond .						Create linked content using a range of software such as Connect and 2Publish+ . To share digital content within their community, i.e. using Virtual Display Boards .						Able to use several ways of sharing digital content, i.e. 2Blog , Display Boards and 2Email .						Able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.												

Digital Literacy	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2						
	To understand what is meant by technology and can identify a variety of examples both in and out of school.						Effectively retrieve relevant, purposeful digital content using a search engine. Apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. 2Publish example template.						To demonstrate the importance of having a secure password and not sharing this with anyone else.						Explore key concepts relating to online safety using concept mapping such as 2Connect.						To have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services.						To demonstrate the safe and respectful use of a range of different technologies and online services.											
	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2
	Make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair.						Make links between technology they see around them, coding and multimedia work they do in school e.g. animations, interactive code and programs.						Explain the negative implications of failure to keep passwords safe and secure.						Help others to understand the importance of online safety. To know a range of ways of reporting inappropriate content and contact.						To implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.						Identify more discreet inappropriate behaviours through developing critical thinking, e.g. 2Respond activities											
	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2
	To understand the importance of keeping information, such as their usernames and passwords, private and actively demonstrate this in lessons.						To know the implications of inappropriate online searches.						Understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as 2Email in Purple Mash.												Recognise the value in preserving their privacy when online for their own and other people's safety.																	
	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2
To take ownership of their work and save this in their own private space such as their My Work folder on Purple Mash.						To begin to understand how things are shared electronically such as posting work to the Purple Mash display board						Know more than one way to report unacceptable content and contact.																														
A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	A1	A2	Sp1	Sp2	S1	S2	
						Develop an understanding of using email safely by using 2Respond activities on Purple Mash and know ways of reporting inappropriate behaviours and content to a trusted adult.																																				