Abbott Community Primary School

KS1 and KS2 Computing Assessment Document

Adapted April 2022

Using this document:

- Please use this guidance to assess each individual child's achievement within all areas of computing.
- This should also be used as a tool, to inform your planning.
- The aim is for **all** children to **master** the objectives within the appropriate year group, whilst at the same time, having the opportunity for **deeper learning** within these key areas.
- These planned opportunities will enable you to effectively assess the children's achievements, at different points of the academic year.

We aim for all children to acquire the ability to implement the following fundamental characteristics of effective coders and users of technology:

- Competence in coding for a variety of practical and inventive purposes, including the application of ideas within other subjects.
- The ability to connect with others safely and respectfully, understanding the needs to act within the law and with moral and ethical integrity.
- An understanding of the connected nature of devices.
- The ability to communicate ideas well by using applications and devices throughout the curriculum.
- The ability to collect, organise and manipulate data effectively.

The learning objectives are in bold, followed by smaller steps of progression underneath, of how to achieve each one. Please use your knowledge of the children to decide upon a 'best fit' judgement as to whether the pupil has achieved and embedded the expected learning goals, exceeded expectations or is still working towards the goals.

Breadth of Study:

Key Stage 1	Key Stage 2
• Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous of instructions. • Create and debug simple programs. • Use logical reasoning to predict the behaviour of simple programs. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Recognise common uses of information technology beyond school. • Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about context or contact on the internet or other online technologies	• 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. • 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. • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content, that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Computer Science:

	Key Stage 1	
	Year 1	**Year 2**
Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	**I can explain that an algorithm is a set of instructions by:** •Knowing what instructions are and that they have an end intended outcome as their aim. •Being able to follow and give simple instructions. •Having an understanding that the order of instructions is important to a successful outcome. **I know that a computer program turns an algorithm into code that the computer can understand by:** •Knowing what an algorithm is. •Knowing that an algorithm can be used to create code that a computer can process (understand). •Knowing that the above is called a program. •Recalling what a simple algorithm represented with block coding looks like e.g. a command where an object performs an action.	**I can explain an algorithm is a set of instructions to complete a task by:** •Knowing what instructions are and that they have an end intended outcome as their aim. •Being able to follow and give simple instructions. •Understanding that an algorithm is a set of instructions to achieve an aim. **I know I need to carefully plan my algorithm so it will work when I make it into code by:** •Being able to recall what is meant by an algorithm and recognise this in terms of coding. •Knowing what planning is and why it is important. •Knowing the importance of planning my algorithm to achieve a desired outcome. •Being able to plan an algorithm and transpose this into code (block coding).
Create and debug simple programs.	**I can work out what is wrong when the steps are out of order in instructions by:** •Knowing that instructions need to be followed in the correct order to achieve the expected outcome. •Knowing that failure to follow an instruction/algorithm correctly will end up with undesired outcome. •Being able to correct simple errors made when following/reading an algorithm. **I can try and fix my code if it isn't working properly by:** •Knowing about algorithms and how this relates to coding. •Understanding how to code simple algorithms. •Being able to interpret simple sequences of block code on the screen and predict the outcome before it is run.	**I can design a simple program using 2Code that achieves a purpose by:** •Being able to recall what a program is. •Understanding what is meant by 'the task and the design of a program'. •Being able to create a simple algorithm considering the task aim\design brief. •Using my own written algorithm and transposing this into code (block coding). **I can find and correct some errors in my program by:** •Understanding the term 'debug' and why this is important in coding. •Being able to code simple sequential programs. •Developing the ability to debug my own code to ensure successful outcomes.

	• Being able to analyse simple coding algorithms and assess where errors might be.	• Being able to use a design brief/document for support when debugging.
Use logical reasoning to predict the behaviour of simple programs.	**I can make good guesses of what is going to happen in a program by:** • Knowing about algorithms and instructions. • Understanding how to code simple algorithms (a sequence of instructions). • Being able to decode (read) and predict simple block coding.	**I can say what will happen in a program by:** • Recapping on knowledge of what is meant by a program. • Being able to read program code (e.g. block code) on screen and make logical predictions as to what will happen. **I can spot something in a program that has an action or effect (does something) by:** • Understanding what an action is in coding (Block). • Understanding what effect an action in coding (Block) will have. • Knowing what an effect could be in coding giving a few examples. • Finding actions or effects when analysing code.

Information Technology:

	Key Stage 1	
	Year 1	**Year 2**
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	**I can sort sound, pictures and text by:** •Knowing what is meant by 'picture'. •Knowing what is meant by 'text'. •Understanding what is meant by 'sort'. •Being able to sort by a given criteria. **I can add sound, pictures and text to a program such as 2Create a Story by:** •Knowing that 'picture' can also include photographs. •Knowing what is meant by ''sound'. •Being able to add sound, picture and text to appropriate Purple Mash applications such as 2Create a Story. **I can change content on a file such as text, sound and images by:** •Understanding that pictures, sounds and text can be edited to better suit the audience. •Being able to begin to edit content in an appropriate manner. **I can name my work by:** •Understanding what 'naming work means'. •Understanding the importance of giving work a unique name and one that explains to the user what the file is when they want to open it in the future. **I can save my work by:** •Recapping how to name their work. •Understanding the importance of saving my work so I can revisit it in the future.	**I can organise data – for example, using a database such as 2Investigate by:** •Knowing what is meant by the term 'information' and then how this relates to the term 'data'. •Looking at different ways of sorting images by various criteria. •Understanding why it may be necessary to sort large amounts of data so that is easier to find the relevant information. **I can find data using specific searches – for example, using 2Investigate by:** •Understanding that when faced with large amounts of data we need to effectively search to find what we are looking for. •Looking at how to search data found in a database such as 2Investigate. •Beginning to develop the skills needed to search for information on the Internet. **I can use several programs to organise information – for example, using binary trees such as 2Question or spreadsheets such as 2Calculate by:** •Understanding that data can be sorted in different ways depending upon the program used e.g., using yes/no questions in a binary tree. •Beginning to sort information myself so I can find answers to questions. **I can edit digital data such as data in music composition software like 2Sequence by:** •Knowing what the term 'music' means.

	• Being aware that in many programs, including those on Purple Mash, the floppy disc icon and folders are associated with saving. • Saving work in an appropriate place. • Knowing that when saving work on Purple Mash, this can be in personal folders I have access to, or in shared folders that other people have access to. **I can find my work by:** • Recapping how to save work in an appropriate folder. • Understanding how to search in folders. • Understanding how to use the 'open' button on Purple Mash to access it.	• Realising that on Purple Mash, 2Sequence is one way to create my own music. • Beginning to compose then save a simple melody. • Adding premade sound effects to my composition and in some cases begin to create my own sound effects • Editing tune that I have previously created to make it better. • Performing my finished work to an audience. **I can name, save and find my work by:** • Recapping the key points on naming, saving and finding work from year 1. • Beginning to use the 'search' function on Purple Mash to search for premade work templates. **I can include photos, text and sound in my creations by:** • Recapping the work from year 1 about what is meant by pictures, sound and text. • Beginning to understand the icons associated with photos, text and sound on Purple Mash and where appropriate, on industry standard software. • Understanding that adding photos, text and sound can improve the quality of the creation for the audience.

Digital Literacy:

	Key Stage 1	
	Year 1	Year 2
Recognise common uses of information technology beyond school.	**I can say what technology is by:** •Understanding what is meant by the term 'technology'. •Understanding the purpose of technology and explore how it helps humans carry out daily activities more efficiently. •Making observations around the environment and understanding that there is old and new technology, such as chairs and smart phones. **I can say what examples of technology are in school by:** •Observing and exploring the environment in school, identifying technology and how it is used. •Understanding what technology is common to a school and less common outside of a school. **I can say what examples of technology are at home by:** •Observing and exploring the home environment, identifying technology and how it is used. •Understanding technology is common in a home and less common outside of a home. **I know that a chair uses old technology and a smart phone uses new technology by:** •Understanding the purpose of technology and explore how it helps humans carry out daily activities more efficiently. •Knowing that technology has existed for thousands of years and has developed as humans have learnt more about their environment and science. •Realising that technology in the environment will be a mixture of new and old technology	**I can find information I need using a search engine by:** •Being able to explain what the Internet is in basic terms. •Knowing that there are things called search engines that let users search for content using the Internet. •Being able to identify the basic parts of a search engine. •Being able to read a web search results page. **I can see where technology is used at school such as in the office or canteen by:** •Identifying technology in and around school. •Recognising the purpose of technology in and around school and how it facilitates making tasks easier. **I understand that my creations such as programs in 2Code, need similar skills to the adult world. e.g., The program used for collecting money for school trips by:** •Understanding what a program is. •Understanding why we create programs and how they can help people. •Knowing that there are skills we learn in coding at school that help us solve problems in the real world.

	• Being able to give an example of how new technology has replaced some of the old technology we used to have e.g. smart phone replacing cameras.	
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.	**I can keep my login information safe by:** • Knowing what is meant by 'login' and why some sites require a login on them. • Knowing that my login information is personal to me. • Understanding that some things shouldn't be shared such as login information. • Considering ways I can keep my login information safe. **I can save my work in a safe place such as 'My Work' folder by:** • Understanding the importance of saving work. • Understanding the icons on programs normally associated with saving e.g. floppy disk icon • Knowing why we should save our work. • Understanding that it's important to save work created in a particular place.	**I know the consequences of not searching online safely by:** • Being able to identify the basic parts of a search engine. • Being able to read a web search results page. • Understanding that everyone has a digital footprint. • Knowing that there are dangers online and understand who I can tell if they feel unsafe. • Knowing what I would and wouldn't want on my digital footprint. • Knowing what makes me feel sad and what makes me feel happy. **I can share work and communicate electronically – for example using 2Email or the display boards by:** • Knowing that work can be shared with others electronically. • Talking about why I may want to share my work. • Knowing the difference between email and display boards. • Understanding that when sharing work electronically that there are differences between mediums such as 2Email and display boards. **I can report unkind behaviour and things that upset me online, to a trusted adult by:** • Knowing what makes me feel sad and what makes me feel happy. • Knowing what is meant by a trusted adult. • Knowing that when I am unsure or concerned about something that I should tell the trusted adult.

Online Safety:

Key Stage 1	
Year 1	**Year 2**
Emerging: With support, pupils demonstrate an awareness of online safety using their own private usernames and passwords for Purple Mash (Unit 1.1 Lesson 1. Point 6). This can be assisted by using printed login cards. Pupils take ownership of their work and save this in their own private space (Unit 1.1 Lesson 1. Point 16). **Expected:** Pupils demonstrate an understanding of the importance of online safety, using their own private usernames and passwords for Purple Mash (Unit 1.1 Lesson 1. Point 6). Most pupils will be able to demonstrate an understanding of the reasons for keeping their password private including talking about the meaning of 'private information' (Lesson 1) and actively demonstrate this in lessons (Throughout all lessons in Unit 1.1). Pupils take ownership of their work and will be able to save their work, using a memorable file name, to their own personal space on Purple Mash and understand that this can be retrieved later Unit 1.1 Lesson 1 Point 18. Most pupils will be able to add their name to their picture in lesson 1. In lesson 2, most pupils will be able to explain that their teacher was able to connect with them online to leave a message in Purple Mash. They could contribute to the class discussion relating this to other forms of digital communication. Most pupils will be able to give a simple explanation of the way to word comments online when given the example of their teacher commenting upon their work. Throughout this unit most pupils will be able to contribute their ideas about communicating appropriately and relate online and off-line appropriate behaviour. Most pupils will be able to open Purple Mash and use the search bar within Purple Mash to find resources (lesson 2). They can suggest appropriate words to search with to find the results that they are looking for. **Exceeding:** Pupils demonstrate an understanding of the importance of online safety using their own private usernames and passwords for Purple Mash. Pupils understand the importance of keeping information, such as their usernames and passwords private and actively demonstrate this in lessons. Pupils take ownership of their work and	**Emerging:** With support, pupils are beginning to understand how to use the Purple Mash search bar and know the implications of inappropriate searches (Unit 2.2 Lesson 1. Point 1). With support, they can share their work using the display board (Unit 2.2 Lesson 1. Point 16). Furthermore, using 2Respond activities, the pupils develop an understanding of how to use email safely and responsibly (Unit 2.2 Lesson 2. Point 4). They also know how to report inappropriate content to their teacher. Pupils have an awareness that their Internet searches form part of a 'digital footprint'. **Expected:** Pupils understand how to use the Purple Mash search bar and know the implications of inappropriate searches (Unit 2.2 Lesson 1. Point 1). Most pupils will be able to explain what a digital footprint is, that it is permanent and their online behaviour influences what it shows (lesson 3). Most pupils will be able to give reasons for keeping their password safe that include protecting their personal information. Most pupils will be able to express the good and bad sides of digital technology. In lesson 3, they can give examples of positive effects on life as well as negative. Pupils add their name to work but show a differentiation between full name and first name only when information is to be shared online. Most pupils will be able to share their work to a displayboard (lesson 1). By sharing their work using the display board, pupils begin to understand how things are shared electronically (Unit 2.2 Lesson 1. Point 16). Most pupils will be able to open and respond to simulated emails in 2Email (lesson 2) Most pupils will be able to open and send email responses to simulated emails in 2Email (Unit 2.2 Lesson 2 Point 4). Furthermore, using 2Respond activities the pupils develop an understanding of how to use email safely and responsibly (Unit 2.2 Lesson 2. Point 4). They also know how to report inappropriate content to their teacher. Pupils can relate the creation of a digital footprint to their search history and make contributions to the class discussion about this in relation to online safety. Pupils know that many search engine companies collect and sell information about users.

save this in their own private space. Pupils demonstrating greater depth understand the principle but not the terminology of 'intellectual property' e.g., pupils might say 'I am saving my work, in my folder because I have created it and it belongs to me'.	**Exceeding:** Pupils understand how to use the Purple Mash search bar (Unit 2.2 Lesson 1. Point 1) and for greater depth can refine searches using Boolean search terms (AND, OR, NOT). They know the implications of inappropriate searches. Pupils can share their work using the display board and begin to understand how things are shared electronically (Unit 2.2 Lesson 1. Point 16). Furthermore, using 2Respond activities, the pupils develop an understanding of how to use email safely and responsibly (Unit 2.2 Lesson 2. Point 4). They also know how to report inappropriate content to their teacher. Pupils apply what they know about search engine algorithms to their own online safety and digital footprint. They can understand the implications of search engines selling information and having paid ads at the top of search results.

Computer Science:

	Lower Key Stage 2	
	Year 3	**Year 4**
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	**I can base a written algorithm for a program upon a real-life situation by:** • Recapping knowledge of what algorithms are and how they can be used to create a program. • Understanding that real-life situations and problems can be modelled in computer programs. **I can design an algorithm carefully, thinking about what I want the program to do and how I could turn my algorithm into code by:** • Understanding how to design an algorithm carefully based on a real-life situation and what I want my program to represent. • Being able to reflect upon the coding structures with which I am familiar in order to create an algorithm that I am confident I can represent in code.	**I can turn a real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code by:** • Recapping my knowledge of algorithms and how they can be used to code a program. • Recapping that real-life situations and problems can be modelled in computer programs. • Using planning tools such as flowcharts when designing an algorithm to model a real-life situation and using prior knowledge of coding structures available within a coding environment such as 2Code when creating a plan.
Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	**I am able to design a program thinking logically about the sequence of steps required by:** • Having knowledge of flowcharts and how these can be used to design a program. • Being able to predict what will happen when looking at a simple flowchart. • Being able to trace a flowchart they have created and recognise the impact of the steps they take (the effect). • Being able to adapt a program design based in a flowchart or other planning format before coding in order to achieve the desired outcomes. • Knowing that a flowchart can represent procedures: There could be two or more things happening simultaneously when run and each of these things is a procedure.	**I can use repetition in my code. For example, using a loop that continues until a condition is met such as the correct answer being entered by:** • Interpreting a flowchart or plan of an algorithm that depicts an IF/Else statement (selection). • Being able to explain what an IF and Else statement is and that it is an example of selection within coding. • Knowing that selection is when a piece of code is run only if a condition is met and relate this to IF and ELSE in context. E.g. If input = 5 show 5 rabbits Else show none. • Understanding the 'repeat until' command and how this can be used in conjunction with IF and Else to create a loop until a condition is met.

	I can experiment with timers in my programs by: • Understanding that there are various coding structures in computer coding software that can help create various effects and outcomes. One of these features is the use of timers to control the program flow. • Knowing there are different ways to represent situations algorithmically to solve a problem. Timers can be used in a variety of ways to different effects. • Knowing that timers can be used to make sure a sequence is carried out in the order intended. • Recognising and knowing how to use the 'timer after' and 'timer every' commands.	**I can use timers within my program designs more accurately to create repetition effects by:** • Recapping that there are different ways to solve a problem and commands such as timers can be used to different effects when solving a problem or modelling a situation. • Being able to explain how timers can be used to make sure a sequence is carried out in the order intended. • Being able to explain how to use the 'timer after' and 'timer every' commands. • Being able to explain that a timer can be used in combination with selection to create repetition effects for example by showing a character every x seconds using the timer feature until a condition is met such as clicking on the character. **I can use selection (decision) in my programming. For example, using an 'if statement' for a question being asked and the program takes one of two paths by:** • Knowing that selection is when a piece of code is run only if a condition is met and relate this to IF and ELSE in context. E.g. If input = 5 show 5 rabbits Else continue to show none. • Explaining what an IF/ELSE statement is and recognise a selection structure (such as if\else) within an algorithm represented by a flowchart or other suitable plan. **I can use variables within my program and know how to change the value of variables by:** • Understanding what the term variable means. • Being able to explain a variable in basic terms such as a named box (the variable name) that can store items (the variable value). • Knowing that the variable value can be changed by a user, the program or another variable. • Knowing there are different types of variables: in 2Code these are numbers and strings.

		• Knowing that the variable value is a temporary value stored by the program while it is running. • Knowing that it is important to initialize variables at the start of a program. • Knowing that IF and ELSE statements can be used to change a variable's value. **I can use the user inputs and output features within my program, such as 'Print to screen' by:** • Understanding what user input and outputs are, and give examples of these. • Knowing how inputs and outputs could be used in a program and why they may be useful. • Being able to select the most appropriate user input and output within programs given their context.
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	**I can experiment with the effect of using repeat commands by:** • Knowing that a repeat command can make a block of commands run a set number of times or forever. • Having the understanding to make informed decisions about whether a repeat command could be used to carry out a set of instructions more concisely (using less code). For example a program that draws a square using the repeat command. **I can identify the difference in using the effect of a timer or repeat command in my code by:** • Understanding what a timer is and that there is 'timer every' and 'timer after' command. • Understanding that a repeat command can make a block of commands run a set number of times or forever. • Being able to experiment and observe the effect of using a timer in a program versus using a repeat in order to build up a generalised understanding about which commands to use to achieve a desired effect. **I can identify an error in my program and fix it by:**	**I can identify errors in my code by using different methods, such as stepping through lines of code and fixing them by:** • Explaining the need for debugging and the approaches they use to debug programs. • Understanding key components within a computer program such as: Outputs, Inputs, Controls, Events, Variables and Objects. • Being able to recognise what nesting is when they see it in code and know that nesting can achieve repetition and selection effects: To then use this knowledge to assist when tracing and debugging nested code. • Recalling what objects are, and know that they can have different types of properties and actions . • Identifying that when debugging, properties and actions of objects may need to be modified to make a program run as intended. **I can read programs that contain several steps and predict the outcomes with increasing accuracy by:** • Understanding what key components within a computer program do such as: Outputs, Inputs, Controls, Events, Variables and Objects.

	• Being able to create computer programs using prior knowledge of coding structures such as those for sequencing or for repetition. • Recalling key prior learning of what objects, actions, outputs, events, timers, sound and repeat are and the effects that they have in a program. • Recalling key prior learning of the use of algorithms (such as flowcharts and storyboards) to effectively design programs to achieve an aim or accomplish a task and to use when verifying the effectiveness of the code. • Being able to recognise what nesting is when I see it in coding and know that nesting can achieve repetition and selection effects: To then use this knowledge to assist when debugging nested code. • Being able to trace through code as it executes and identify parts of code that aren't functioning as intended. • Being able to debug code, refining it so that it executes as planned. **I can read programs with several steps and predict what it will do by:** • Recalling key prior learning of what objects, actions, outputs, events, timers, sound and repeat are and the effects that they have in a program. • Recalling key prior learning of the use of algorithms (such as flowcharts and storyboards) used to effectively design programs to achieve an aim or accomplish a task and to use these when tracing the processes within a program. • Recognising the prior components above in code and know what each does. • Being able to analyse programs, identifying each command and structure within it and interpreting what will happen when executed. • Being able to trace through, step by step, and predict the outcome when executed.	• Reading blocks of code, tracing through step by step and recognising coding structures such as sequences, repetition and selection to aid in interpreting the effect when the code is run. • Being able to read the conditions that will cause nested code to run or stop. • Being able to trace through such code recognising what will happen when a condition is or is not met.
Understand computer networks, including	**I can identify different ways that the Internet can be used for communication by:**	**I recognise the main component parts of hardware which allow computers to join and form a network by:**

the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.	• Recognising what communication is and the different forms it can take. • Knowing how technology has allowed for different mediums of communication to be improved or has created new mediums of communication such as email. • Knowing what the Internet is and understand that through a connection of computers communication can take place. • Knowing that there are now recognised ways of communicating using the Internet such as Email and the advantages and disadvantages of this. **I can use email such as 2Email to respond to others appropriately and attach files by:** • Knowing what email is and be familiar with an email interface, recognising key components such as send, address book and email format. • Understanding how to compose an email and what happens when this is sent. • Recognising and knowing of the importance of email conventions in terms of composing them. • Knowing how to behave safely including when attaching files to emails and opening files attached to received emails.	• Recognising the main hardware parts of a computer. • Understanding what is meant by a network and internet. • Knowing that computers can join networks and connect to an internet through wired and non-wired connections. • Understanding that some types of hardware allow computers to join networks such as modems which allow for signals to be changed and transmitted over long distances, enabling a connection with other computers and networks of computers. **I understand that network and communication components can be found in many different devices which allow them to join the internet by:** • Understanding what is meant by a network and Internet. • Knowing what commonly found and used devices can connect to networks.

Information Technology:

	Lower Key Stage 2	
	Year 3	**Year 4**
Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	**I can carry out searches to find digital content on a range of online systems, such as within Purple Mash or on an Internet search engine (Across units) by:** • Recapping the work from year 2 on searching including databases and the Internet. • Looking at how the search function works on Purple Mash including how to narrow down the search criteria using filters, so it is easier to find exactly what the child is look for. • Continuing to developing their Internet search skills across the wider curriculum including using the + function on the search bar.	**I understand the purpose of a search engine and the main features within it by:** • Recapping learning about search engines from year 3. • Knowing the names of well-known and popular search engines. • Understanding the different features of a search engine home screen. • Understanding that information can be ascertained from search engines in various ways including searching using a question. • Completing tasks to show I understand a range of search techniques. **I can look at information on a webpage and make predictions about the accuracy of information contained within it by:** • Developing an understanding of what is meant by 'reliable'. • Understanding that not everything they read online is true and begin to ascertain when a website may contain false information. • Looking for clues about a website and it's address that may tell them if it is likely to be reliable.

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.	**I can collect data and input it into software by:** • Recapping work from year 2 about what is meant by data. • Collecting data in a range of ways such as through questionnaires and investigations. • Adding data into a data collection program e.g., 2Question in an appropriate manner. **I can analyse data using features within software to help such as, formula in 2Calculate (spreadsheets) by:** • Knowing that after entering data into software it can be more easily analysed than looking at raw paper-based data. • Looking at the different ways of entering data onto various programs including 2Graph, 2Calculate and 2Question. • Entering data practically based upon a given task. • Looking at the different ways of analysing data on various programs such as the 'count' tool on 2Calculate to see how frequently data occurs. **I can present data and information using different software such as 2Question (branching database) or 2Graph (graphing tool) by:** • Understanding that data can be presented in various ways, and this depends upon the specific program used e.g., various graphing formats when using 2Calculate or 2Graph, as pictures and questions when using 2Question. • Entering data into a program and then presenting the data in an appropriate manner to answer given questions. **I can consider what the most appropriate software to use when given a task by my teacher (Across units) by:** • Being familiar with the full range of software I have used this year and in previous years and be able to talk about the function of each program.	**I can create and improve my solutions to a problem based on feedback. For example, create a program using 2Code by:** • Having familiarity with the programs they have used thus far so they can select an appropriate solution to the given problem. • Being about the problem and have ideas about the solution that would be most appropriate. • Solving the problem using their given skills. **I can review solutions that others have created, using a checklist of criteria by:** • Understanding that reviewing solutions to problems is also known as debugging. • Understanding what is meant by the term 'criteria'. • Looking at solutions to problems created by themselves or others. • Developing skills needed to debug whether the solution will work. • Making suggested amendments where needed. **I can work collaboratively to create content and solutions by:** • Understanding what the term 'collaboratively' means. • Appreciating why collaborative working may be more effective and efficient than working alone. • Looking at ways certain programs on Purple Mash have collaboration built into them such as 2Connect and how they can collaborate using the remaining software. • Working collaboratively where appropriate to solve a given challenge. **I can share digital content using a variety of applications such as: 2Blog, 2Email and Display Boards (Across units) by:** • Understanding the term 'digital content'. • Considering why sharing work is important. • Looking at ways of sharing of sharing work on Purple Mash including 2Email, 2Blog and via Display boards.

	• Clearly understanding the task given by the teacher. • Selecting the most appropriate program to solve the task. • Completing the task and then save their work in an appropriate folder. • Sharing work, where appropriate, with a wider audience. **I can create purposeful (appropriate) content and attach this to emails by:** • Understanding what is meant by the term 'e-mail' • Accessing access 2Email within Purple Mash or use an alternative that is suitable for children. • Looking at how to send and receive an email. • Creating the content I will attach. • Understanding the meaning of the term 'attachment'. • Being familiar with the icon often associated with attachment. • Attaching a piece of work and then send it to the chosen recipient. • Understanding, where appropriate, the danger of opening attachment from people they do not know. • Developing the skills to open an attachment from an email they have been sent.	• Developing skills so I can share work they have created to a wider audience.

Digital Literacy:

	Lower Key Stage 2	
	Year 3	**Year 4**
Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	**I can create a secure password by:** • Being able to say what a password is. • Recapping on the importance of keeping passwords safe. • Knowing why we need secure passwords. • Knowing the outcomes of not keeping a password safe. • Recognising features of secure passwords such as numbers, letters and symbols. • Knowing a password shouldn't contain information about them such as their birthday as that could be easily discovered. **I can explain the importance of having a secure password and not sharing it with others by:** • Recapping the importance of keeping passwords safe. • Knowing why we need passwords. • Recognising the features of a secure password such as numbers, letters and symbols. • Recapping what personal information is and to know what should and shouldn't be shared with others. **I can explain the negative consequences of not keeping passwords safe and secure by:** • Recapping the importance of keeping passwords safe. • Knowing why we need passwords. • Understanding that there are people that could cause harm to our personal data if they had access to our passwords.	**I have a good understanding of the online safety rules we learn at school by:** • Knowing why we should have online safety rules. • Developing an understanding of the SMART rules. • Knowing why it is important to behave respectfully online. • Recapping on reporting concerns about online content and contact. **I can demonstrate how to use different online technologies safely by:** • Recalling what is meant by the term 'online'. • Recapping that there are lots of different devices that are enabled to connect to the Internet and online networks. • Knowing the online safety rules they have at school e.g SMART • Recapping the importance of behaving respectfully online. • Recapping the importance of reporting concerns. **I can demonstrate how to use a few different online services safely by:** • Recapping that there are lots of different devices that are enabled to connect to the Internet and online networks. • Knowing the online safety rules they have at school. • Recapping the importance of behaving respectfully online. • Recapping the importance of reporting concerns. • Exploring the use of blogs and email or similar and know the differences of how content is shared and the audiences.

	I understand the importance of keeping safe online and behaving respectfully by: • Understanding there are negatives and positives to being online. • Knowing that not everything we 'consume' online is true. • Recapping the fact that everyone has a digital footprint and remind themselves of what they would and wouldn't like on it. • Recognising the consequences of not being safe online. • Recapping that I should inform a trusted adult if I am concerned or upset about something online. • Realising that my behaviour online should be respectful and that there are consequences to myself and others if I choose to behave disrespectfully. **I can use communication tools such as 2Email respectfully and use good etiquette by:** • Understanding what is meant by good etiquette. • Understanding what is meant by the term 'respectfully'. • Recognising that how we behave offline should be similar to how we behave online. • Understanding why we must behave appropriately when using communication tools. • Recapping the conventions of an email environment. **I can report unacceptable content and contact online in more than one way to a trusted adult by:** • Knowing who trusted adults are. • Recognising feelings that alert me to being uncomfortable or having concerns about content or contact online. • Being aware of reporting mechanisms.	**I know I have a right to privacy both on and offline by:** • Knowing the difference between online and offline. • Knowing the online safety rules of school. • Recapping the importance of behaving respectfully online. • Recapping the importance of reporting concerns. • Knowing what information is private to me. **I recognise that my wellbeing can be affected by how I use technology by:** • Knowing the online safety rules at school. • Recapping the importance of behaving respectfully online. • Recapping the importance of reporting concerns. • Knowing what information is private to them. • Understanding the negative impact prolonged screen time can have. **I can report with ease any concerns with content and contact online and know immediate strategies to keep safe by:** • Knowing the online safety rules at school. • Recapping the importance of behaving respectfully online. • Recapping the importance of reporting concerns. • Knowing who the trusted adults are and that these adults may change as they get older. • Having an understanding of various mechanisms both online and offline for reporting concerns.

Online Safety:

Lower Key Stage 2	
Year 3	**Year 4**
Emerging: With prompting, pupils can understand that it is important to have a secure password that is not shared with anyone else (Unit 3.2 Lesson 1. Point 1). Pupils can give a negative example of failure to keep passwords secure (Unit 3.2 Lesson 1. Point 1). Pupils are beginning to identify some of the main things to look for when deciding whether the information on a website is trustworthy or not (Unit 3.2 Lesson 2. Point 2). Pupils demonstrate a basic understanding of email conventions and safety (Unit 3.5 Lesson 3 & 4). **Expected:** Pupils understand the importance of a secure password and not sharing this with anyone else (Unit 3.2 Lesson 1 Point 1). Furthermore, pupils understand the negative implications of failure to keep passwords safe and secure and can suggest examples of good and poor passwords (Unit 3.2 Lesson 1 Point 1). When using the internet, pupils can appraise the accuracy of the information on a website and make decisions on whether it is a trustworthy source of information (Unit 3.2 Lesson 2 Point 2). In lesson 1, step 16, pupils have a choice of topics about which to blog. Most pupils will have gained an understanding that it is not acceptable to use the work of others or post images of others without consent. Most pupils recognise the PEGI ratings and can give examples of why content is rated and how this protects them (lesson 3) Most pupils can contribute to a class collaborative file about the effects of inappropriate content with useful suggestions (lesson 3). Most pupils can answer the quiz questions in lesson 3, their answers demonstrating that they are developing their understanding of the features of online communication. In lesson 1, their blog posts and comments are appropriate. Most pupils can express the need to tell a trusted adult if they are upset by anything online, in lesson 3 their responses illustrate that they have taken this message onboard. Most pupils will be able to use Purple Mash as a platform for collaboration. Specifically, they will create a spoof website for other pupils to read and share on a class display board (Unit 3.2 Lesson 2). In lesson 2, most pupils can use suitable keywords when trying to verify sources. Pupils understand the importance of staying safe (Unit 3.5 Lesson 3. Point 2)	**Emerging:** Pupils contribute their ideas to discussion of spam email (lesson 1), malware (lesson 2) and plagiarism (lesson 3). They have included appropriate content in their Top Tips for Online Safety publication (lesson 2, point 5 and onwards). They have been able to share their work online. With support throughout, pupils show an understand what online safety is. In a small group, they can use 2Connect (Unit 4.2 Lesson 1. Point 3) to map out the key features of online safety. Pupils produce a simple leaflet, postcard, or slideshow etc about online safety, which can then be used as part of presentation to parents (Unit 4.2 Lesson 1. Point 7). Pupils understand that just because something is on the internet it does not mean it is true. They know that they should consider checking and verifying information. **Expected:** Pupils have decided upon the most important online safety messages to communicate and have shared these ideas in their Top Tips for Online Safety publication (lesson 2, point 5 and onwards). They put this knowledge into action in their own online activity. Pupils can explore key concepts relating to online safety using 2Connect Unit 4.2 Lesson 1. Point 3). They help others to understand the importance of online safety (Unit 4.2 Lesson 2. Point 3) and apply their knowledge through the creation of online safety resources which are then used as part of presentation to parents (Unit 4.2 Lesson 1. Point 7). Using the example from lesson 1, pupils can give some examples of things to look out for in an email to ensure that it from a valid source and is not a phishing scam email. They can explain what can be learnt by looking at the padlock details for a website (lesson 1) Most pupils can reflect upon positive and negative aspects of a digital footprint and can give examples of the care they would take when sharing online in relation to their and others' digital footprint (lesson 1). Most pupils can give reasons for taking care when installing apps or software. They know what Malware is and the possible impact of computer viruses and can give recommendations for how best to ensure that they only install valid software as part of their top tips document in lesson 2. Most pupils can give reasons for limiting screen time that include the effect on physical

when using email and have demonstrated knowledge of this through the writing of class rules for their conduct when using email systems (Unit 3.5 Lesson 3 Point 5). Pupils apply their knowledge of email safety through the creation of a quiz on staying safe when emailing (Unit 3.5 Lesson 4. Point 3). In lesson 3, pupils can suggest why they need to seek permission before sharing photos. In lesson 1, pupils can refer to what they learnt in Unit 3.2 regarding Online Safety when suggesting the way to communicate appropriately online. Pupils' email messages illustrate that they have taken on board messages about appropriate communication with a regard for their audience. In lesson 3, this forms part of the slideshow discussion., pupils include this as part of their guidelines for step 5. **Exceeding:** Pupils demonstrating greater depth will be able to give a clear explanation and examples of why having a secure, confidential password is essential and give negative examples of it not being secure and confidential (Unit 3.2 Lesson 1 Point 1). Pupils will be able to appraise the accuracy of information shared on a website and a provide suitable evidence to support their decisions on whether it is trustworthy or not (Unit 3.2 Lesson 2. Point 2). Pupils are not only able to demonstrate an understanding of email conventions and keeping safe but can explain why conventions and certain recognised positive behaviours are expected and the possible consequences of not abiding by them (Unit 3.5 Lessons 3 & 4). Pupils demonstrating greater depth, understand the importance of staying safe (Unit 3.5 Lesson 3. Point 2) when using email and can apply these principles to the related aspects of messaging. Pupils demonstrate their knowledge through taking an active role in the writing of class rules and quiz creation on appropriate conduct when using email systems and can expand on their points to explain their reasoning (Unit 3.5 Lesson 3. Point 5).	and mental health. In lesson 4, they were able to reflect on their own screen time and collective class screen time and begin to make informed decisions about when to limit their own screen time. Most pupils can explain how plagiarism is stealing, they are beginning to be able to identify the aspects of sharing that would be classed as plagiarism (lesson 3) In lesson 4, pupils were able to include actions for reporting cyberbullying or inappropriate content in their screen time study document. By completing lesson 4, most pupils would have saved both online and locally to a device and are able to explain the differences between the two storage types. Most pupils will be able to identify key messages that should be shared with other pupils and parents about online safety, including identification of reliable content from websites found via common search engines (Unit 4.2 Lessons 1 & 2). Most pupils will be able to analyse the contents of a web page for obvious clues about the credibility of the information. They will be able to work in small groups to decide collectively if a website has questionable credibility (Unit 4.7, Lesson 3). **Exceeding:** Pupils have decided upon the most important online safety messages to communicate and have shared these ideas in their Top Tips for Online Safety publication (lesson 2, point 5 and onwards). Pupils demonstrate that they are making connections between the positive possibilities that technology provides e.g. collaboration and sharing and the possible downsides of this such as malware and phishing. They actively use this knowledge to support their own online activities safely. Pupils demonstrating greater depth understand the key concepts and implications of the choices they make relating to online safety (Unit 4.2 Lesson 1. Point 3). They help others to understand the importance of online safety (Unit 4.2 Lesson 2. Point 3) and apply their knowledge and approach to staying safe online in all areas of the curriculum (Unit 4.2 Lesson 1. Point 7). Pupils understand that a single search provider might present a bias, or present information from a flawed source. They seek to corroborate information from other sources using more than one search engine. Pupils know that the results presented to a person on many search engines reflect their previous searches. They realise that this does not give a balanced way to form an opinion about something and presents dangers of being consumed by inaccurate viewpoints and having a misrepresentative world view reinforced.

Computer Science:

	Upper Key Stage 2	
	Year 5	**Year 6**
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	**I can make more complex real-life problems into algorithms for a program by:** • Recapping knowledge of algorithms and how they can be used to create programs. • Recapping that real-life situations and problems can be modelled using computer programs. • Developing skill in using planning tools such as flowcharts when designing an algorithm to solve a real-life problem or represent a situation. • Using more advanced knowledge of a coding environment such as 2Code when creating a design and algorithm for a program. **I can test and debug my programs as I work by:** • Recapping the need for debugging and explain approaches they have used to do this. • Recalling key commands within a computer program such as: Outputs, Inputs, Controls, Events, Variables and Objects. • Recalling what objects are, and explain that they can have different properties and actions when coding. • Understanding that when debugging, properties and actions of objects may need to be modified to make a program run as intended. • Understanding the term decomposition (breaking a task into manageable components and coding separately). • Understanding the term abstraction (removing unnecessary details from code).	**I can turn a complex programming task into an algorithm by:** • Recalling knowledge of planning algorithms including the use of flow charts mapping multiple procedures including repetition and selection. • Recapping knowledge of how to use timers and variables and how to represent these algorithmically. • Being able to utilise features for repetition and selection in coding such as timers and variables. And to incorporate them into algorithms for future programs. **I can identify the important aspects of a programming task (abstraction) by:** • Recalling what abstraction and decomposition is. • Being able to look at a simple program and understand how they can enhance it using more advanced coding structures, utilising higher level abstraction to support them with being successful. **I can decompose important aspects of a programming task in a logical way, identifying appropriate coding structures that would work by:** • Understanding how to split parts of a task into codable components using their knowledge of design and coding to do this. • Recapping coding structures and what they do such as: sequence, repetition, loops and selection. • Recapping repeat until, IF and Else statements. • Understanding what a function is and that these can be used to make code more refined. • Examining the parts of a decomposed design\algorithm and understand which will need to be achieved in

		sequence, which will require repetition of a process, and which will require selection. • Understanding that code can be refined that help make it more efficient when debugging. **I can test and debug my program as I work on it and use logical methods to identify a cause of a bug by:** • Reading through lines of code and interpreting the outcome when run. • Knowing the key components within a coding environment including objects have properties and these can be different according to object type. • When running code, using features such as stepping through code, the variable watch window and changing execution speed. **I can identify a specific line of code that is causing a problem in my program and attempt a fix by:** • Reading through lines of code and interpret the outcome when run. • When running code, using features such as stepping through code, commenting, the variable watch window and changing execution speed.
Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	**I can convert (translate) algorithms that contain sequence, selection and repetition into code that works by:** • Recapping If and Else statements and recall how they can be used. • Recapping the 'repeat until' command and explain what condition must be met for a chunk of code to be executed • Recapping the use of timers as a way of creating repetition effects when coding. • Developing algorithm creation skills using tools such as flowcharts that represent an increased repertoire of coding structures they have encountered in 2Code.	**I can translate algorithms that include sequence, selection and repetition into code and nest these structures within each other by:** • Recapping If and Else statements and recall how they can be used. • Recapping 'repeat until' and what conditions must be met for a chunk of code to be executed. • Recapping the use of timers as a way of creating repetition effects when coding. • Recapping nesting and its importance for ensuring efficient code. • Understanding what a function is and that these can be used to make code more efficient.

	I can use sequence, selection, repetition, and some other coding structures in my code by: • Recapping If and Else statements and recall how they can be used. • Recapping 'repeat until' and what condition must be met for a chunk of code to be executed. • Recapping the use of timers as a way of creating repetition effects when coding. Examining the coding structures used within a coding environment such as 2Code, to achieve more complex effects using selection and repetition together such as loops.	**I can use inputs and outputs within my coded programs such as sound, movement and buttons and represent the state of an object by:** • Recapping the various input and outputs within a coding environment such as 2Code. • Recapping properties of objects such as movement. • Recapping the most suitable type of input and output for an intended outcome. • Exploring the use of buttons and their properties, including how to code that represents a change of state when a button is clicked such as colour or text change.
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	**I can organise my code carefully for example, naming variables and using tabs. I know this will help me debug more efficiently by:** • Understanding the importance of organising code and the impact this has on the ability to debug code. • Understanding the term decomposition (breaking a task into manageable components and coding separately). • Understanding the term abstraction (removing unnecessary details from code). • Thinking about how to organise code using tabs so that the code can be easily interpreted. **I can use logical methods to identify the cause of any bug with support to identify the specific line of code by:** • Being able to read through lines of code and interpret the outcome when run. • Knowing that the key components within a coding environment such as the objects have properties, and these can be different according to object type. Making use of features such as stepping through code, using the variable watch window and changing execution speed when running code to aid with debugging.	**I can interpret (understand) 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 by:** • Being able to read through lines of code and interpret the intention of a section of code using knowledge of coding structures with which they are familiar. • Being able to trace structures including nesting and repetition to see what they are intended to achieve. • Recapping decomposition and abstraction. • Recapping features within 2Code – Output, input, control, events, variables, functions and objects in order to interpret how these are used in programs.

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.	**I know the importance of computer networks and how they help solve problems and enhance communication by:** • Understanding that computers can connect to networks using their hardware components and that these connections can be physical or wireless. • Understanding that developments in technology have helped to enhance communication across the world. • Understanding the negatives and positives of computer networks, including how to keep safe. **I recognise the main dangers that can be perpetuated via computer networks by:** • Understanding the negatives and positives of computer networks. • Knowing that, although predominately positive, there are negative aspects to computer networks and that some users behave inappropriately or carry out unkind or illegal activities online such as bullying and financial crimes. **I can explain what personal information is and know strategies for keeping this safe by:** • Knowing what is meant by information. • Understanding that some information can be personal and that if shared via a network could have negative consequences. • Knowing what information about them is personal and what should and shouldn't be shared. • Knowing some methods that are used to try to steal people's personal information and how to protect themselves against these. • Knowing who their trusted adults are and what to do if they feel uncomfortable or concerned about an interaction, experience or something they have observed online.	**I can explain the difference between the Internet and the World Wide Web by:** • Knowing what networks are and that hardware within computers and devices can enable connections to a network. • Knowing that the Internet is a worldwide network of linked computers. • Knowing that the world wide web is just one part of the Internet. • Recognising that a network doesn't have to be connected to the Internet and can be its own Intranet. • Understanding that there are software programs called web browsers that enable a connection to the World Wide Web. • Knowing that the World Wide Web uses the Internet as a way of sharing, connecting and transmitting information between users. **I can explain what a WAN and LAN is and describe the process of how access to the internet in school is possible by:** • Recapping what a network is. • Identifying networks in the everyday world such as at school. • Understanding that networks can be classified according to how they are made up geographically. • Knowing that networks can be independent or connected to the Internet.

	I can use the most appropriate form of online communication according to the digital content. For example, use 2Email, 2Blog and Display Boards by: • Understanding and knowing about the different forms of digital communication. • Recognising the key features of the different forms of digital communication and the contexts where each one is most prevalent. • Knowing what information I should or shouldn't share or communicate via digital communication. Knowing that if I am not confident or unsure about a form of digital communication, I must seek support from a trusted adult.	

Information Technology:

	Upper Key Stage 2	
	Year 5	**Year 6**
Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	**I can search precisely when using a search engine. For example, I know I can add additional words or removes words to help find better results by:** • Knowing the importance of password and that these may be needed for some websites. • Knowing that passwords should not be shared with anyone else. • Knowing that when searching online, I do not need to use grammar and how using a Boolean search can improve the effectiveness of my search. **I can explain in detail how accurate, safe and reliable the content is on a webpage by:** • Recapping the learning on search from year 4 including the reliability of information on websites. • Looking for clues about a website and it's address that may tell them if it is likely to be reliable. **I can make appropriate improvements to digital work I have created (Across units)by:** • Using evaluation skills to analyse how my own or others' work could be improved. • Considering what aspect of my work needs improving e.g. text, pictures or sound and be clear about what these changes will look like. • Editing my work and then save it so the changes are not lost. • If appropriate, sharing my work with a wider audience using 2Email, 2Blog or Display Boards. **I can comment on how successful a digital solution is that I have created. For example, a program built in 2Code that sorts decimals numbers (Across units) by:**	**I can use filters when searching for digital content by:** • Recapping the work from year 5 on searching using Boolean terms. • Thinking about what kind of information they are looking for. • Knowing that when using search engines the user can search for specific types of information e.g. images, videos and from the news and that these are called filters. **I can explain in detail how accurate and reliable a webpage and its content is by:** • Recapping the work from year 5 where they began to look at how reliable a website maybe. • Creating a document or similar that builds on their learning and clearly shows they understand how to look for reliability of information and to spot spoof websites or those containing information that is untrue. **I can compare a range of digital content sources and rate them in terms of content quality and accuracy by:** • Knowing what is meant by 'Digital Content'. • Having clear criteria to accurately rate them. • Beginning to evaluate the sources looking at quality of presentation and the quality of the content within. **I can consider the intended audience carefully when I design and make digital content by:** • Being clear of the audience. • Being clear about what is appropriate for the audience. • Creating a digital piece of work. • Seeking feedback from the audience about the appropriateness. • Evaluating my own work.

	• Recapping the work form year 4 on debugging. • Continuing to develop the skills of looking at their work and ascertaining where there may be errors. • Clearly articulating the changes I will make and how this will correct the error.	
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.	**I can work collaboratively with others creating solutions to problems using appropriate software such as 2Code. (Across units) by:** • Having basic skills needed to work collaboratively. • Working as a team to debug and then find suggested solutions to problems. • Playing an active role in implementing the solution and understand it is more important for the team to be successful than for one person to dominate. **I can use collaborative modes such as within 2Connect to work with others and share it by:** • Recapping the work from year 4 on collaboration including the advantages of collaboration on effectiveness and efficiency. • Knowing that some programs such as 2Investgate and 2connect have collaboration options hard coded into them so that data can be entered more efficiently than one person doing everything alone can. • Contributing to a collaborative piece of work with other children.	**I can design and create my own online blogs by:** • Knowing what a blog is. • Thinking about what information can be shared on a blog. • Contributing to a shared class blog. • Creating my own blog. • Sharing work and information to my blog. • If appropriate, sharing my blog with a wider audience. **I can use criteria to evaluate the quality of my own and others digital solutions, suggesting refinements by:** • Understanding the meaning of 'criteria'. • Developing the skills to evaluate my own and others' work. • Presenting my refinements and improvements in a constructive manner. • Responding to other people's evaluation of their own work and making amendments where needed.

Digital Literacy:

	Upper Key Stage 2	
	Year 5	Year 6
Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	I 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. I can implicitly relate appropriate online behaviour to my right to personal privacy and to the mental wellbeing of myself and others.	I can demonstrate the safe and respectful use of a range of different technologies and online services. I can identify more discreet inappropriate behaviours through developing critical thinking, e.g. 2Respond activities. I can recognise the value in preserving my privacy when online for my own and other people's safety.

Online Safety:

Upper Key Stage 2	
Year 5	**Year 6**
Emerging: Pupils demonstrate a developing understanding of their responsibility to others as well as to themselves when communicating and sharing content online. They know what to do if they are upset by online content and know that there are rules such as the SMART rules to protect them (lesson 1). With support throughout, pupils demonstrate an understanding of what the SMART rules are but may find it difficult to apply all of these to using technology safely and respectfully (Unit 5.1 Lesson 1). They can create a simple comic strip to teach other pupils about online safety (Unit 5.2 Lesson 2). **Expected:** Pupils demonstrate an understanding of their responsibility to others as well as to themselves when communicating and sharing content online. Pupils demonstrate a clear understanding of what the SMART rules are and how they should be applied to using technology safely and respectfully (Unit 5.1 Lesson 1). In lesson 1, step 2, pupils demonstrate that they are developing critical thinking skills in their online experience and know what sorts of inappropriate content should be reported. They can apply their knowledge in the creation of a comic strip to teach other pupils about online safety (Unit 5.2 Lesson 2). When doing image editing in lesson 2, they were able to see both the positive and	**Emerging:** Pupils can refer to the SMART rules to guide them online. They can navigate networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet (using as a source for research or leisure time). They use these networks to collaborate with support using Purple Mash tools such as 2Write and 2Connect. They can use search tools and have an awareness of the need to select sources carefully. They can recognise features online that are risks and those that exist to protect them (lesson 1). Pupils are aware that their actions online have an impact not only on themselves but on others as well. They know to ask for help if they are worried or distressed by something online. Pupils are aware there is an approval process that their posts go through and demonstrate an awareness of the issues surrounding inappropriate posts and cyberbullying (Unit 6.4 Lesson 4. Point 6). Pupils understand the importance of being respectful on the internet. **Expected:** Pupils have a good knowledge of the benefits and risks to working collaboratively. They have no trouble navigating networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet (using as a source for research or leisure time). They use these networks to collaborate using Purple Mash tools such as 2Write, 2Connect and 2Blog and can use a variety of networked devices such as webcams, online tools, printers, and tablets in a connected way for their educational benefit. Pupils can use search tools and routinely try to verify the validity and reliability of their sources. They look for corroborating sources for information and enter keywords that help them to choose the best results. Pupils demonstrate an understanding of their responsibility to others as well as to themselves when communicating and sharing content online. They can identify a variety of risks and benefits of technology (lessons 1 and 3). They feel confident in having strategies to help them promote a positive online image of themselves in their digital footprint. Pupils can identify location sharing as a risk to online safety in lesson 1 and could relate this to work done on protecting their identifying private information. Pupils were able to identify the padlock and https as aids to the online safety in lesson 1 and could explain what these means referring to the work that they did on this in previous years' online safety units. Pupils' work in lesson 1, indicates that they have a clear understanding of terms such as Computer virus, Location sharing, phishing scams, spam email, Malware and Identity theft. In lesson 2, they make sensible contributions to the question of what risks there are when installing an App and the possible risks hidden in the small print. Pupils' work as digital footprint detectives in lesson 2 demonstrates that they understand the impact of a positive and negative digital footprint and how to take control of their own online virtual image. Most pupils can balance the positive impact of technology with the reasons for limiting screen time that include the effect on physical and mental health. In lesson 3,

negative consequences of technological developments including altering images both in terms of impact upon themselves and impact upon others. In lesson 3, pupils can explain why citations must be considered when using the work of others. They know that there is a convention for recording citations and can put this into practice in their work. In lesson 3, step 11 onwards, pupils' contributions demonstrate a growing awareness of the context of communication and an ability to view the communication from the intended audience's point-ofview. Most pupils will be able demonstrate that they understand what is meant by reliable and can build on their ability to identify reliable content. In lesson 3 while completing the citation writing frame, they were able to recognise that it is not a good idea to rely upon only 1 source for information, for example, the Pacific Tree Octopus example. **Exceeding:** Pupils are developing a deeper understanding of the interaction of the positive benefits and negative risks of innovative technology. They take advantage of these technologies in their work but are mindful of protecting themselves and others from harm. Pupils demonstrating greater depth have a detailed knowledge of what the SMART rules are and understand how these are applied to using technology safely and respectfully. Furthermore, they understand the implications of improper use of technology and the internet (Unit 5.1 Lesson 1). They can apply their knowledge in the	they were able to reflect on their own screen time and collective class screen time and begin to make informed decisions about when to limit their own screen time Having studied this aspect in depth in year 5 (lesson 3), pupils routinely include citations in their research work across subjects. They also take care to credit the artist when using images from the Internet. In lesson 2, as part of the discussion surrounding digital footprints, pupils explored the existence of metadata to track the source of images. Having studied this aspect in depth in year 5 (lesson 2, step 11+ and lesson 3, step 6+), pupils take care to credit the artist when using images from the Internet and know how to explore the rights and permissions associated with an image online. They can explain the difference between copyright and privacy and are mindful of both aspects when working with images. Most pupils can make informed choices when communicating online for example selecting the appropriate form of communication for its purpose and audience. They can discuss the use of instant messaging in social contexts, aware of the pros and cons of using such tools. Pupils recognise the approval process that their posts go through and demonstrate an awareness of the issues surrounding inappropriate posts and cyberbullying (Unit 6.4 Lesson 4. Point 6). Pupils become active contributors to a blog, carefully considering their responses to blog posts to ensure that they are always respectful (Unit 6.4 Lesson 4. Point 12). Pupils understand the implications of inappropriate use of the blog. **Exceeding:** Pupils view their own/school devices as a means to access a wealth and mixture of networked and local resources. They use these in an integrated way; for example, they can take information and images from one source, compare them to others, include them in their written work alongside their own original images and text to enhance their own understanding and produce high quality comprehensive work. They are implicitly aware of the benefits and risks to working collaboratively. They navigate networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet and use these networks to collaborate using Purple Mash tools such as 2Write, 2Connect and 2Blog. Pupils can use search tools effectively, routinely verifying the validity and reliability of their sources. They look for corroborating sources for information and enter keywords that help them to choose the most suitable results. They are aware that search engines are also often money-making ventures for their providers and that this has personal privacy implications. They know where to look to investigate their privacy settings on search engines. Pupils have an internalised in-depth understanding of the risks and benefits of an online presence (lessons 1 and 3). Their actions demonstrate that they also feel a responsibility to others when communicating and sharing content online. They feel confident in having strategies to help them promote a positive online image of themselves and deal with issues that might arise in the future. Exceeding: Pupils understand why there is an approval process for any posts and understand the issues surrounding inappropriate posts and cyberbullying (Unit 6.4 Lesson 4. Point 6). Pupils demonstrating greater depth, understand that 2Blog is an introduction to the world of blogging and is a way for the user to become a content creator on the internet. As such the

creation of a detailed comic strip to teach other pupils about online safety (Unit 5.2 Lesson 2).	content included in their blog carefully considers the end user (Throughout Unit). They understand the implications of inappropriate use of the blog and how this relates to the real world.

Characteristics of Mastery & Depth

Interdependence	Can apply the skill or knowledge without recall to the teacher.
Fluency	Can apply the skill and knowledge with a high level of confidence.
Application	Can apply the skill and knowledge to a range of different contexts, including other areas of the curriculum.
Consistency	Will be consistent in their use of the skills and understanding
Synthesise	Can organise ideas, information, or experiences into new, more complex interpretations and relationships and make decisions as to when to use different skills
Re-visit	Can come back to this aspect of learning after a break and still feel confident that they can work on the skill and knowledge without difficulty.