purple mash

Computing Scheme of Work

-

Achieving the 'I Can' Progression Statements

Contents

Introduction

The purpose of this document is to provide a breakdown of each key progression statement for years 1 to 6. All the key things that children will need to know, recap on or do can be found next to each progression statement. We have structured the document into the three computing curriculum strands for the National Curriculum: Computing, Information Technology and Digital Literacy.

This document contains all the progression statements found in the Progression of Skills documents. You might find it useful to use it alongside the [Progression of Skills: I can statements](#) doc.

Need more support? Contact us:
Tel: +44(0)208 203 1781 | Email: support@2simple.com | Twitter: @2simplesoftware

2 simple

Computer Science

Year 1	
Computer Science – I can Progression Statements	**Steps to Success**
I can explain that an algorithm is a set of instructions (1.4, 1.5)	Children need: • Knowledge of what instructions are and that instructions have an end intended outcome as their aim. • To be able to follow and give simple instructions. • To have an understanding that the *order* of instructions is important to a successful outcome. • Understand that an algorithm is a set of instructions to achieve an aim.
I know that a computer program turns an algorithm into code that the computer can understand. (1.4, 1.7)	Children need: • Knowledge of what instructions are and that instructions have an end intended outcome as their aim. • Knowledge of what an algorithm is. • Knowledge that an algorithm can be used to create code that a computer can process (understand). This is called a program. • To recall what a simple algorithm represented with block coding looks like e.g. a command where an object performs an action.
I can work out what is wrong when the steps are out of order in instructions (1.4, 1.5)	Children need: • Knowledge of what instructions are Knowledge of what an algorithm Knowledge that instructions need to be followed in the correct order to achieve the expected outcome. • That failure to follow an instruction/algorithm correctly will end up with undesired outcome. • Children need to be able to correct simple errors made when following/reading an algorithm.
I can try and fix my code if it isn't working properly (1.7)	Children need: • Knowledge of algorithms and how this relates to coding. • To understand how to code simple algorithms. • To be able interpret simple sequences of block code on the screen and predict the outcome before it is run. • To be able to analyse simple coding algorithms and assess where errors might be.

2simple

	• To understand the term debugging and begin to be able to make sensible suggestions to correct code so that it performs desired outcome.
I can make good guesses of what is going to happen in a program (1.5, 1.7)	Children need: • Knowledge of algorithms and instructions. • To understand how to code simple algorithms (a sequence of instructions). • To be able to decode (read) and predict simple block coding.

Year 2	
Computer Science – I can Progression Statements	**Steps to Success**
I can explain an algorithm is a set of instructions to complete a task. (2.1)	Children need: • Knowledge of what instructions are and that instructions have an end intended outcome as their aim. • To be able to follow and give simple instructions • Understand 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. (2.1)	Children need: • To be able to recall what is meant by an algorithm and recognise this in terms of coding. • Know what planning is and why it is important. • To know the importance of planning their algorithm to achieve a desired outcome. • To be able to plan an algorithm and transpose this into code (block coding).
I can design a simple program using 2Code that achieves a purpose. (2.1)	Children need: • To be able to recall what a program is. • To understand what is meant by 'the task and the design of a program'. • To be able to create a simple algorithm considering the task aim\design brief. • To use their own written algorithm and transpose this into code (block coding).
I can find and correct some errors in my program. (2.1)	Children need: • To understand the term 'debug' and why this is important in coding. • To be able to code simple sequential programs. • To develop the ability to debug their own code to ensure successful outcomes. • To be able to use a design brief/document to support them when debugging.
I can say what will happen in a Program. (2.1)	Children need: • To recap their knowledge of what is meant by a program.

	• To be 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). (2.1)	Children need: • To understand what an action is in coding (Block). • To understand what effect an action in coding (Block) will have. • To know what an effect could be in coding giving a few examples. • To find actions or effects when analysing code.

Year 3	
Computer Science – I can Progression Statements	Steps to Success
I can base a written algorithm for a program upon a real-life situation.(3.1)	Children need: • To recap their knowledge of what algorithms are and how they can be used to create a program. • To understand 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. (3.1)	Children need: • To understand how to design an algorithm carefully based on a real-life situation and what they want their program to represent. • To be able to reflect upon the coding structures with which they are familiar in order to create an algorithm that they are confident they can represent in code.
I am able to design a program thinking logically about the sequence of steps required. (3.1 Coding)	Children need: • To have knowledge of flowcharts and how these can be used to design a program. • To be able to predict what will happen when looking at a simple flowchart. • To be able to trace a flowchart they have created and recognise the impact of the steps they take (the effect). • To be able to adapt a program design based in a flowchart or other planning format before coding in order to achieve the desired outcomes. • To know 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 experiment with timers in my programs. (3.1)	Children need: • To understand 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. • To know there are different ways to represent situations algorithmically to solve a problem. Timers can be used in a variety of ways to different effects.

Need more support? Contact us:
Tel: +44(0)208 203 1781 | Email: support@2simple.com | Twitter: @2simplesoftware

2simple

	- To know that timers can be used to make sure a sequence is carried out in the order intended. - To recognise and know how to use the 'timer after' and 'timer every' commands.
I can experiment with the effect of using repeat commands. (3.1)	Children need: - To know that a repeat command can make a block of commands run a set number of times or forever. - To have 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. (3.1)	Children need: - To understand what a timer is and that there is 'timer every' and 'timer after' command. - To understand that a repeat command can make a block of commands run a set number of times or forever. - 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. (3.1)	Children need: - To be able to create computer programs using prior knowledge of coding structures such as those for sequencing or for repetition. - To recall key prior learning of what objects, actions, outputs, events, timers, sound and repeat are and the effects that they have in a program. - To recall 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. - To be able to recognise what nesting is when they 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.

2simple

	• To be able to trace through code as it executes and identify parts of code that aren't functioning as intended. • To be 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. (3.1)	Children need: • To recall key prior learning of what objects, actions, outputs, events, timers, sound and repeat are and the effects that they have in a program. • To recall 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. • To recognise the prior components above in code and know what each does. • To be able to analyse programs, identifying each command and structure within it and interpreting what will happen when executed. • To be able to trace through, step by step, and predict the outcome when executed.
I can identify different ways that the Internet can be used for communication. (3.5)	Children need: • To recognise what communication is and the different forms it can take. • To know how technology has allowed for different mediums of communication to be improved or has created new mediums of communication such as email. • To know what the Internet is and understand that through a connection of computers communication can take place. • To know 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. (3.5)	Children need: • To know what email is and be familiar with an email interface, recognising key components such as send, address book and email format. • To understand how to compose an email and what happens when this is sent. • To recognise and know of the importance of email conventions in terms of composing them. • To know how to behave safely including when attaching files to emails and opening files attached to received emails.

2simple

Year 4	
Computer Science – I can Progression Statements	Steps to Success
I can turn a real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code. (4.1, 4.5)	Children need: • To recap their knowledge of algorithms and how they can be used to code a program. • To recap that real-life situations and problems can be modelled in computer programs. • To use planning tools such as flowcharts when designing an algorithm to model a real-life situation and use prior knowledge of coding structures available within a coding environment such as 2Code when creating a plan.
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. (4.1)	Children need: • To interpret a flowchart or plan of an algorithm that depicts an IF/Else statement (selection). • To be able to explain what an IF and Else statement is and that it is an example of selection within coding. • To know 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. • Understand 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 use timers within my program designs more accurately to create repetition effects. (4.1)	Children need: • To recap 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. • To be able to explain how timers can be used to make sure a sequence is carried out in the order intended. • To be able to explain how to use the 'timer after' and 'timer every' commands. • To be 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.

2simple

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. (4.1)	Children need: • To know 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. • To explain 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. (4.1)	Children need: • To understand what the term variable means. • To be able to explain a variable in basic terms such as a named box (the variable name) that can store items (the variable value). • To know that the variable value can be changed by a user, the program or another variable. • To know there are different types of variables: in 2Code these are numbers and strings. • To know that the variable value is a temporary value stored by the program while it is running. • To know that it is important to initialize variables at the start of a program. • To know 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'. (4.1)	Children need: • To understand what user input and outputs are, and give examples of these. • To know how inputs and outputs could be used in a program and why they may be useful. • To be able to select the most appropriate user input and output within programs given their context.
I can identify errors in my code by using different methods, such as stepping through lines of code and fixing them. (4.1)	Children need: • To explain the need for debugging and the approaches they use to debug programs. • To understand key components within a computer program such as: Outputs, Inputs, Controls, Events, Variables and Objects. • To be 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. • To recall what objects are, and know that they can have different types of properties and actions .

2simple

	• Identify 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. (4.1, 4.5)	Children need: • To understand what key components within a computer program do such as: Outputs, Inputs, Controls, Events, Variables and Objects. • To read 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. • To be able to read the conditions that will cause nested code to run or stop. • To be able to trace through such code recognising what will happen when a condition is or is not met..
I recognise the main component parts of hardware which allow computers to join and form a network. (4.8)	Children need: • To recognise the main hardware parts of a computer. • To understand what is meant by a network and Internet. • To know that computers can join networks and connect to an internet through wired and non-wired connections. • To understand 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. (4.2, 4.7, 4.8)	Children need: • To understand what is meant by a network and Internet. • To know what commonly found and used devices can connect to networks.

2simple

Year 5	
Computer Science – I can Progression Statements	**Steps to Success**
I can make more complex real-life problems into algorithms for a program. (5.1)	Children need: • To recap their knowledge of algorithms and how they can be used to create programs. • To recap that real-life situations and problems can be modelled using computer programs. • To develop their skill in using planning tools such as flowcharts when designing an algorithm to solve a real-life problem or represent a situation. • To use their 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. (5.1, 5.5)	Children need: • To recap the need for debugging and explain approaches they have used to do this. • To recall key commands within a computer program such as: Outputs, Inputs, Controls, Events, Variables and Objects. • To recall what objects are, and explain hat they can have different properties and actions when coding. • To understand that when debugging, properties and actions of objects may need to be modified to make a program run as intended. • To understand the term decomposition (breaking a task into manageable components and coding separately). • To understand the term abstraction (removing unnecessary details from code).
I can convert (translate) algorithms that contain sequence, selection and repetition into code that works. (5.1)	Children need: • To recap If and Else statements and recall how they can be used. • To recap the 'repeat until' command and explain what condition must be met for a chunk of code to be executed • To recap the use of timers as a way of creating repetition effects when coding. • To develop algorithm creation skills using tools such as flowcharts that represent an increased repertoire of coding structures they have encountered in 2Code..

2simple

I can use sequence, selection, repetition, and some other coding structures in my code. (5.1)	Children need: • To recap If and Else statements and recall how they can be used. • To recap 'repeat until' and what condition must be met for a chunk of code to be executed. • To recap the use of timers as a way of creating repetition effects when coding. • To examine 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 organise my code carefully for example, naming variables and using tabs. I know this will help me debug more efficiently. (5.1)	Children need: • To understand the importance of organising their code and the impact this has on the ability to debug code. • To understand the term decomposition (breaking a task into manageable components and coding separately). • To understand the term abstraction (removing unnecessary details from code). • To think 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. (5.1)	Children need: • To be able to read through lines of code and interpret the outcome when run. • To know that the key components within a coding environment such as the objects have properties, and these can be different according to object type. • To make 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 know the importance of computer networks and how they help solve problems and enhance communication. (5.2)	Children need: • To understand that computers can connect to networks using their hardware components and that these connections can be physical or wireless. • To understand that developments in technology have helped to enhance communication across the world. • To understand the negatives and positives of computer networks, including how to keep safe.
I recognise the main dangers that can be perpetuated via computer networks. (5.2)	Children need: • To understand the negatives and positives of computer networks.

2simple

	• To know 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. (5.2)	Children need: • To know what is meant by information. • To understand that some information can be personal and that if shared via a network could have negative consequences. • To know what information about them is personal and what should and shouldn't be shared. • To know some methods that are used to try to steal people's personal information and how to protect themselves against these. • To know 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 use the most appropriate form of online communication according to the digital content. For example, use 2Email, 2Blog and Display Boards. (5.2 & others)	Children need: • To understand and know about the different forms of digital communication. • To recognise the key features of the different forms of digital communication and the contexts where each one is most prevalent. • To know what information they should or shouldn't share or communicate via digital communication. • To know if they are not confident or unsure about a form of digital communication, they must seek support from a trusted adult.

2simple

Year 6	
Computer Science – I can Progression Statements	Steps to Success
I can turn a complex programming task into an algorithm. (6.1)	Children need: • To recall knowledge of planning algorithms including the use of flow charts mapping multiple procedures including repetition and selection. • To recap knowledge of how to use timers and variables and how to represent these algorithmically. • To be 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). (6.1)	Children need: • To recall what abstraction and decomposition is. • To be able 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. (6.1)	Children need: • To understand how to split parts of a task into codable components using their knowledge of design and coding to do this. • To recap coding structures and what they do such as: sequence, repetition, loops and selection. • To recap repeat until, IF and Else statements. • To understand what a function is and that these can be used to make code more refined. • To examine 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. • To understand 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. (6.1)	Children need: • To read through lines of code and interpret the outcome when run.

Need more support? Contact us:
Tel: +44(0)208 203 1781 | Email: support@2simple.com | Twitter: @2simplesoftware

2simple

	- To know the key components within a coding environment including objects have properties and these can be different according to object type. - When running code, they can use 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. (6.1)	Children need: - To read through lines of code and interpret the outcome when run. - When running code, they can use features such as stepping through code, commenting, the variable watch window and changing execution speed.
I can translate algorithms that include sequence, selection and repetition into code and nest these structures within each other. (6.1)	Children need: - To recap If and Else statements and recall how they can be used. - To recap 'repeat until' and what conditions must be met for a chunk of code to be executed. - To recap the use of timers as a way of creating repetition effects when coding. - To recap nesting and its importance for ensuring efficient code. - To understand what a function is and that these can be used to make code more efficient. .
I can use inputs and outputs within my coded programs such as sound, movement and buttons and represent the state of an object. (6.1, 6.7)	Children need: - To recap the various input and outputs within a coding environment such as 2Code. - To recap properties of objects such as movement. - To recap the most suitable type of input and output for an intended outcome. - To explore 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.
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. (6.1)	Children need: - To be 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. - To be able to trace structures including nesting and repetition to see what they are intended to achieve. - To recap decomposition and abstraction. - To recap features within 2Code – Output, input, control, events, variables, functions and objects in order to interpret how these are used in programs.

Need more support? Contact us:
Tel: +44(0)208 203 1781 | Email: support@2simple.com | Twitter: @2simplesoftware

2simple

I can explain the difference between the Internet and the World Wide Web. (6.2, 6.4,6.6)	Children need: • To know what networks are and that hardware within computers and devices can enable connections to a network. • To know that the Internet is a worldwide network of linked computers. • To know that the world wide web is just one part of the Internet. • To recognise that a network doesn't have to be connected to the Internet and can be its own Intranet. • To understand that there are software programs called web browsers that enable a connection to the World Wide Web. • To know 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. (6.2,6.6)	Children need: • To recap what a network is. • To identify networks in the everyday world such as at school. • To understand that networks can be classified according to how they are made up geographically. • To know that networks can be independent or connected to the Internet.

Information Technology

Year 1	
Information Tech – I can Progression Statements	Steps to Success
I can sort sound, pictures and text. (1.2)	Children need: • To know what is meant by 'picture'. • To know what is meant by 'text'. • To understand what is meant by 'sort'. • To be able to sort by a given criteria.
I can add sound, pictures and text to a program such as 2Create a Story. (1.6)	Children need: • To know what is meant by 'picture' and that picture can also include photographs. • To know what is meant by 'text'. • To know what is meant by ''sound'. • To be 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. (1.3, 1.6, 1.7, 1.8)	Children need: • To know what is meant by 'picture'. • To know what is meant by 'text'. • To know what is meant by ''sound'. • To understand that pictures, sounds and text can be edited to better suit the audience. • To be able to begin to edit content in an appropriate manner.
I can name my work. (1.2, 1.3, 1.6, 1.7, 1.8)	Children need: • To understand what 'naming work means'. • To understand 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. (1.2, 1.3, 1.6, 1.7, 1.8)	Children need: • To recap how to name their work. • To understand the importance of saving their work so they can revisit it in the future. • To be aware that in many programs, including those on Purple Mash, the floppy disc icon and folders are associated with saving.

2 simple

	• To save their work in an appropriate place. • Know that when they save their work on Purple Mash this can be in personal folders, they have access to or in shared folders other people have access to.

I can find my work. (1.2, 1.3, 1.6, 1.7, 1.8)	Children need:
	• To recap how to save their work in an appropriate folder.
	• To understand how to search in folders.
	• To understand how to use the 'open' button on Purple Mash.to access their work.

Year 2	
Information Tech – I can Progression Statements	Steps to Success
I can organise data – for example, using a database such as 2Investigate. (2.3, 2.4)	Children need: • To know what is meant by the term 'information' and then how this relates to the term 'data'. • To look at different ways of sorting images by various criteria. • To understand 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. (2.4, 2.5)	Children need: • To know what is meant by the term 'information' and then how this relates to the term 'data' . • To understand that when faced with large amounts of data we need to effectively search to find what we are looking for. • To look at how to search data found in a database such as 2Investigate. • To begin 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. (2.4, 2.8)	Children need: • To know what is meant by the term 'information' and then how this relates to the term 'data' . • To understand that data can be sorted in different ways depending upon the program used e.g., using yes/no questions in a binary tree. • To begin to sort information themselves so they can find answers to questions.
I can edit digital data such as data in music composition software like 2Sequence. (2.7 and most units)	Children need: • To know what the term 'music' means. • To realise that on Purple Mash, 2Sequence is one way to create their own music. • To begin to compose then save a simple melody. • To add premade sound effects to their composition and in some cases begin to create their own sound effects./ • To edit a tune that they have previously created to make it better. • To perform their finished work to an audience.
I can name, save and find my work. (2.3, 2.4, 2.6, 2.7, 2.8 & most units)	Children need: • Recap the key points on naming, saving and finding work from year 1. • Begin to use the 'search' function on Purple Mash to search for premade work templates.

2simple

I can include photos, text and sound in my creations. (2.8, 2.6)	Children need: - Recap the work from year 1 about what is meant by pictures, sound and text. - To begin to understand the icons associated with photos, text and sound on Purple Mash and where appropriate on industry standard software. - To understand that adding photos, text and sound can improve the quality of the creation for the audience.

Year 3	
Information Tech – I can Progression Statements	**Steps to Success**
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)	Children need: • To recap the work from year 2 on searching including databases and the Internet. • To look 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. • To continue developing their Internet search skills across the wider curriculum including using the + function on the search bar.
I can collect data and input it into software. (3.3, 3.6, 3.8)	Children need: • Recap work from year 2 about what is meant by data. • To collect data in a range of ways such as through questionnaires and investigations. • To add 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). (3.3, 3.6, 3.8)	Children need: • To know that after entering data into software it can be more easily analysed than looking at raw paper-based data. • To look at the different ways of entering data onto various programs including 2Graph, 2Calculate and 2Question. • To practically enter data themselves based upon a given task. • To look 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). (3.3, 3.6, 3.8,3.9)	Children need: • To understand 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. • To enter data into a program and then present the data in an appropriate manner to answer given questions.

2simple

I can consider what the most appropriate software to use when given a task by my teacher. (Across units)	Children need: • To be familiar with the full range of software they have used this year and in previous years and be able to talk about the function of each program. • To clearly understand the task given to them by the teacher. • Select the most appropriate program to solve the task. • Complete the task and then save their work in an appropriate folder. • Where appropriate, to share their work with a wider audience.
I can create purposeful (appropriate) content and attach this to emails. (3.3, 3.5, 3.6, 3.7, 3.8, 3.9)	Children need: • To understand what is meant by the term 'e-mail' • Can access 2Email within Purple Mash or use an alternative that is suitable for children. • Look at how to send and receive an email. • Create the content they will attach. • Understand the meaning of the term 'attachment'. • To be familiar with the icon often associated with attachment • Attach a piece of work and then send it to the chosen recipient. • Where appropriate understand the danger of opening attachment from people they do not know. • To develop the skills to open an attachment from an email they have been sent.

Year 4	
Information Tech – I can Progression Statements	Steps to Success
I understand the purpose of a search engine and the main features within it. (4.7)	Children need: • A recap of their learning about search engines from year 3. • To know the names of well-known and popular search engines. • Understand the different features of a search engine home screen. • To understand that information can be ascertained from search engines in various ways including searching using a question. • To complete task to show they 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. (4.7)	Children need: • To develop an understanding of what is meant by 'reliable'. • To understand that not everything they read online is true and begin to ascertain when a website may contain false information. • To look for clues about a website and it's address that may tell them if it is likely to be reliable.
I can create and improve my solutions to a problem based on feedback. For example, create a program using 2Code. (4.1, 4.2)	Children need: • To have familiarity with the programs they have used thus far so they can select an appropriate solution to the given problem. • Be clear about the problem and have ideas about the solution that would be most appropriate. • To solve the problem using their given skills.
I can review solutions that others have created, using a checklist of criteria. (4.1, 4.2)	Children need: • To understand that revieing solutions to problems is also known as debugging. • To understand what is meant by the term 'criteria'. • To look at solutions to problems created by themselves or others. • To develop skills needed to debug whether the solution will work. • To make suggested amendments where needed.
I can work collaboratively to create content and solutions. (4.1, 4.3, 4.4,48)	Children need: • To understand what the term 'collaboratively' means. • To appreciate why collaborative working may be more effective and efficient than working alone.

2simple

	- Look at ways certain programs on Purple Mash have collaboration built into them such as 2Connect and how they can collaborate using the remaining software. - To work 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)	Children need: - To understand the term 'digital content'. - To consider why sharing work is important. - To look at ways of sharing of sharing work on Purple Mash including 2Email, 2Blog and via Display boards. - To develop the skills so they can share work they have created to a wider audience.

Year 5	
Information Tech – I can Progression Statements	**Steps to Success**
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. (5.2)	Children need: - To know the importance of password and that these may be needed for some websites. - To know that passwords should not be shared with anyone else. - To know that when searching online they do not need to use grammar and how using a Boolean search can improve the effectiveness of their search.
I can explain in detail how accurate, safe and reliable the content is on a webpage. (5.2)	Children need: - Recap the learning on search from year 4 including the reliability of information on websites. - To look 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)	Children need: - Use their evaluation skills to analyse how their own or others work could be improved. - To consider what aspect of their work needs improving e.g. text, pictures or sound and be clear about what these changes will look like. - To edit their work and then save it so the changes are not lost. - If appropriate, share their 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)	Children need: - Recap the work form year 4 on debugging. - To continue to develop the skills of looking at their work and ascertaining where there may be errors. - To clearly articulate the changes they will make and how this will correct the error.
I can work collaboratively with others creating solutions to problems using appropriate software such as 2Code. (Across units)	Children need: - To have basic skills needed to work collaboratively. - To work as a team to debug and then find suggested solutions to problems. - Play 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. (5.7)	Children need: • To recap the work from year 4 on collaboration including the advantages of collaboration on effectiveness and efficiency. • To know 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. • To contribute to a collaborative piece of work with other children.

Year 6	
Information Tech – I can Progression Statements	**Steps to Success**
I can use filters when searching for digital content. (6.2,6.9)	Children need: • To recap the work from year 5 on searching using Boolean terms. • To think about what kind of information they are looking for. • To know 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. (6.2)	Children need: • To recap the work from year 5 where they began to look at how reliable a website maybe. • To create 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. (6.1, 6.3, 6.4, 6.5, 6.7,6.9)	Children need: • To know what is meant by 'Digital Content'. • To have clear criteria to accurately rate them. • To begin 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. (6.1, 6.3, 6.4, 6.5, 6.7,6.9)	Children need: • To be clear of their audience. • To clear about what is appropriate for the audience. • To create a digital piece of work. • To seek feedback from the audience about the appropriateness. • To evaluate their own work.
I can design and create my own online blogs. (6.4)	Children need: • To know what a blog is. • To think about what information can be shared on a blog. • To contribute to a shared class blog.

Need more support? Contact us:
Tel: +44(0)208 203 1781 | Email: support@2simple.com | Twitter: @2simplesoftware

2 simple

	• To create their own blog.
	• Share work and information to their blog.
	• If appropriate share their blog with a wider audience.
I can use criteria to evaluate the quality of my own and others digital solutions, suggesting refinements. (6.1, 6.3, 6.4, 6.5, 6.7,6.9)	Children need: • To understand the meaning of 'criteria'. • To develop the skills to evaluate their own and others work. • To present their refinements and improvements in a constructive manner. • To respond to other people's evaluation of their own work and make amendments where needed.

Digital Literacy

Year 1	
Digital Literacy – I can progression statements	Steps to success
I can say what technology is. (1.9)	Children need: • To understand what is meant by the term 'technology'. • To understand the purpose of technology and explore how it helps humans carry out daily activities more efficiently. • To make observations around their environment and understand that there is old and new technology such as chairs and smart phones.
I can say what examples of technology are in school. (1.9)	Children need: • To know what technology is. • To observe and explore their environment in school identifying technology and how it us used. • To understand what technology is common to a school and less common outside of a school.
I can say what examples of technology are at home. (1.9)	Children need: • To recap what technology is. • To observe and explore their home environment identifying technology and how it is used. . • To understand what 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. (1.9)	Children need: • To know what technology is. • To understand the purpose of technology and explore how it helps humans carry out daily activities more efficiently. • To know that technology has existed for thousands of years and has developed as humans have learnt more about their environment and science. • To realise that technology in their environment will be a mixture of new and old technology and be able to give example of how new technology has replaced some of the old technology we used to have e.g. smart phone replacing cameras. .
I can keep my login information safe. (1.1 and most units)	Children need: • To know what is meant by 'login' and why some sites require a login on them. • To know that their login information is personal to them.

2simple

	- To understand that some things shouldn't be shared such as login information. - To consider ways they can keep their login information safe.
I can save my work in a safe place such as 'My Work' folder. (1.1 and most units)	Children need: - To understand the importance of saving work. - To understand the icons on programs normally associated with saving e.g. floppy disk icon - To know why we should save our work. - To understand that it's important to save work created in a particular place.

Year 2	
Digital Literacy – I can progression statements	Steps to success
I can find information I need using a search engine. (2.5)	Children need: • To be able to explain what the Internet is in basic terms. • To know that there are things called search engines that let users search for content using the Internet. • To be able to identify the basic parts of a search engine. • To be able to read a web search results page.
I know the consequences of not searching online safely. (2.2, 2.5)	Children need: • To be able to identify the basic parts of a search engine. • To be able to read a web search results page. • To understand that everyone has a digital footprint. • To know that there are dangers online and understand who they can tell if they feel unsafe. • To know what they would and wouldn't want on their digital footprint. • To know what makes them feel sad and what makes them feel happy.
I can share work and communicate electronically – for example using 2Email or the display boards. (2.2 and others)	Children need: • To know that work can be shared with others electronically. • To talk about why they may want to share their work. • To know the difference between email and display boards. • To understand 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. (2.2)	Children need: • To know what makes them feel sad and what makes them feel happy. • To know what is meant by a trusted adult. • To know that when they are unsure or concerned about something that they should tell their trusted adult.

2 simple

I can see where technology is used at school such as in the office or canteen. (2.2)	Children need: • To recap the meaning of the word technology. • To identify technology in and around school. • To recognise 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. (2.1)	Children need: • To understand what a program is. • To understand why we create programs and how they can help people. • To know that there are skills we learn in coding at school that help us solve problems in the real world.

2 simple

Year 3	
Digital Literacy – I can progression statements	Steps to success
I can create a secure password. (3.2)	Children need: • To be able to say what a password is. • To recap on the importance of keeping passwords safe. • To know why we need secure passwords. • To know the outcomes of not keeping a password safe. • To recognise features of secure passwords such as numbers, letters and symbols. • To know 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. (3.2, 3.5)	Children need: • To recap the importance of keeping passwords safe. • To know why we need passwords. • To recognise the features of a secure password such as numbers, letters and symbols. • To recap 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. (3.2, 3.5)	Children need: • To recap the importance of keeping passwords safe. • To know why we need passwords. • To understand that there are people that could cause harm to our personal data if they had access to our passwords.
I understand the importance of keeping safe online and behaving respectfully. (3.2)	Children need: • To understand there are negatives and positives to being online. • To know that not everything we 'consume' online is true. • To recap the fact that everyone has a digital footprint and remind themselves of what they would and wouldn't like on it. • To recognise the consequences of not being safe online. • To recap that they should inform a trusted adult if they are concerned or upset about something online. • To realise that their behaviour online should be respectful and that there are consequences to themselves and others if they choose to behave disrespectfully.

2 simple

I can use communication tools such as 2Email respectfully and use good etiquette. (3.2, 3.5)	Children need: • To understand what is meant by good etiquette. • To understand what is meant by the term 'respectfully'. • To recognise that how we behave offline should be similar to how we behave online. • To understand why we must behave appropriately when using communication tools. • To recap the conventions of an email environment.
I can report unacceptable content and contact online in more than one way to a trusted adult. (3.2)	Children need: • To know who their trusted adults are. • To recognise feelings that alert them to being uncomfortable or having concerns about content or contact online. • To be aware of reporting mechanisms.

2simple

Year 4	
Digital Literacy – I can progression statements	Steps to success
I have a good understanding of the online safety rules we learn at school. (4.2 & across curriculum)	Children need: • To know why we should have online safety rules. • Develop an understanding of the SMART rules • To know why it is important to behave respectfully online. • To recap on reporting concerns about online content and contact.
I can demonstrate how to use different online technologies safely. (4.2 & across curriculum)	Children need: • To recall what is meant by the term 'online'. • To recap that there are lots of different devices that are enabled to connect to the Internet and online networks. • To know the online safety rules they have at school e.g SMART • To recap the importance of behaving respectfully online. • To recap the importance of reporting concerns.
I can demonstrate how to use a few different online services safely. (4.2 & across curriculum)	Children need: • To recap that there are lots of different devices that are enabled to connect to the Internet and online networks. • To know the online safety rules they have at school. • To recap the importance of behaving respectfully online. • To recap the importance of reporting concerns. • To explore the use of blogs and email or similar and know the differences of how content is shared and the audiences.
I know I have a right to privacy both on and offline. (4.2 & across curriculum)	Children need: • To know the difference between online and offline. • To know the online safety rules they have at school. • To recap the importance of behaving respectfully online. • To recap the importance of reporting concerns. • To know what information is private to them.
I recognise that my wellbeing can be affected by how I use technology. (4.2 & across curriculum)	Children need: • To know the online safety rules they have at school. • To recap the importance of behaving respectfully online. • To recap the importance of reporting concerns.

2simple

	• To know what information is private to them. • To understand 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. (4.2 & across curriculum)	Children need: • To know the online safety rules they have at school. • To recap the importance of behaving respectfully online. • To recap the importance of reporting concerns. • To know who the trusted adults are and that these adults may change as they get older. • To have an understanding of various mechanisms both online and offline for reporting concerns.

Need more support? Contact us:
Tel: +44(0)208 203 1781 | Email: support@2simple.com | Twitter: @2simplesoftware

2simple

Year 5	
Digital Literacy – I can progression statements	Steps to success
I have a secure knowledge of online safety rules taught at school. (5.2 & across units)	Children need: • To recap the online safety rules they have at school. • To recap the importance of behaving respectfully online. • To recap the importance of reporting concerns. • To recap who the trusted adults are and to know that these adults may change as they get older. • To demonstrate implementation of the online safety rules at school.
I can demonstrate the safe and respectful use of different online technologies and online services. (5.2 & across units)	Children need: • To recap that many devices have online capability. • To be aware of common online services and the differences between them such as email, online messaging, blogs. • To recap the importance of behaving respectfully online. • To recap knowledge on reporting concerns with content or contact. • To recap who the trusted adults are and to know that these adults may change as they get older. • To know that some online services have age restrictions to help keep children safe from harmful content or contact.
I always relate appropriate online behaviour to my right to have personal privacy. (5.2 & across units)	Children need: • To recap the online safety rules they have at school. • To recap what information is personal to them and shouldn't be shared. • To know the importance of behaving respectfully and appropriately online. • To think before sharing: Is it true, helpful, inspiring, necessary and kind?
I know how to not let my mental wellbeing or others be affected by use of online technologies and services. (5.2 & across units)	Children need: • To know the online safety rules they have at school. • To recap the importance of behaving respectfully online. • To recap the importance of reporting concerns. • To know what information is private to them. • To understand the negative impact prolonged screen time can have. • To think before sharing: Is it true, helpful, inspiring, necessary and kind?

Year 6	
Digital Literacy – I can progression statements	Steps to success
I can demonstrate safe and respectful use of a range of different technologies and online services. (6.2, 6.4)	Children need: • To recap that many devices have online capability. • To be aware of common online services and the differences between them such as email, online messaging, blogs. • To recap the importance of behaving respectfully online. • To recap knowledge on reporting concerns with content or contact. • To recap who the trusted adults are and to know that these adults may change as they get older. • To know that some online services have age restrictions to help keep children safe from harmful content or contact. • To know that some behaviours are deemed risky and that there are age restrictions on content such as games, messaging services and also social media sites and that these are there to protect the user. • To know that they should never be embarrassed or ashamed of an online concern they have and to always share this with a trusted adult who can help them.
I can identify more discrete inappropriate behaviours online. For example, someone who may be trying to groom me or someone else. (6.2)	Children need: • To understand the negatives and positives of the online world including online gaming, online messaging and social media platforms/apps. • To know that there are some people that behave inappropriately online that may carry out illegal activities or act in unkind ways. • To recognise appropriate and inappropriate contact and content online. • To recap what information should be kept private online. • To understand that nothing online is ever truly safe or private and therefore our behaviours should reflect this fact.
I can use critical thinking to help me stay safe online. (6.2)	Children need: • To recap that not everything online is true, nor is everyone telling the truth about whom they are.

2 simple

	• To recap signs of behaviour that are inappropriate online and can demonstrate ways of dealing safely with inappropriate behaviour. • To be aware of how search engines work and that the digital footprint of a user dictates how search engines display results as well as what content is promoted on social media sites and apps. • To have tools to help decide on whether content is accurate.
I know the value of protecting my privacy and others online. (6.2, 6.4)	Children need: • To recap the online safety rules they have at school. • To recap what information is personal to them and shouldn't be shared. • To know the importance of behaving respectfully and appropriately online. • To recap THINK before sharing: Is it true, helpful, inspiring, necessary and kind?

2 simple