Year 4
Skills Check

Progression Overview
&
‘I can’ skills statements

Contents

Introduction

The purpose of this document is to provide a mechanism for children to identify the progress they are making against core skills.
The skills have been mapped against the National Curriculum and the Purple Mash Scheme of Work. We have provided helpful reference codes to each statement and the unit(s) this most explicitly relates to.
This document has been separated into year groups containing a skills progression overview for teachers and individual child friendly 'I can' statements for each computing strand.

Layout and Use

Teachers have a handy year group progression overview to refer to throughout the year. Each progression overview is sectioned into strands, national curriculum objectives and outcome statements.

Strands

N.C Statements

Pupil Outcomes

	Computer Science			Information Technology	Digital Literacy	
Statement	**Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.**	**Create and debug simple programs.**	**Use logical reasoning to predict the behaviour of simple programs.**	**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 content or contact on the internet or other online technologies.**
Outcome	Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that an algorithm written for a computer is called a program.	Children can work out what is wrong with a simple algorithm when the steps are out of order, e.g. The Wrong Sandwich in Purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code.	When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. Children can, for example, interpret where the turtle in 2Go challenges will end up at the end of the program.	Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.	Children understand what is meant by technology and can identify a variety of examples both in and out of school. They can make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair.	Children understand the importance of keeping information, such as their usernames and passwords, private and actively demonstrate this in lessons. Children take ownership of their work and save this in their own private space such as their My Work folder on Purple Mash.

Pupils have 'I can' progression statements. For each term they can colour code the monkey, self-assessing at either: Sometimes, mostly, or always.
There is also space for teachers to add additional information against each progression statement.

Y1 Pupil 'I Can' Statements for Computing SOW Skills - Computer Science

Name: **Class:**

= Sometimes = Mostly = Always

	Unit Theme	'I can'	Aut	Spr	Sum	Teacher Comments
Computer Science	1.4-Lego Builders 	I can explain that an algorithm is a set of instructions.				
	1.5-Maze Explorers 	I know that an algorithm written for a computer is called a program.				
		I can work out what is wrong when the steps are out of order in instructions.				
	1.7-Coding 	I can say that if something does not work how it should it is because my code is incorrect.				
		I can try and fix my code if it isn't working properly.				
		I can make good guesses of what is going to happen in a program. For example, where the turtle might go.				

Y4 Teacher Progression Overview: N.C. Statements & skills

	Computer Science				Information Technology		Digital Literacy
Statement	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 concern about content and contact.
Outcome	When turning a real-life situation into an algorithm, the children's design shows that they are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition. Children make more intuitive attempts to debug their own programs.	Children's use of timers to achieve repetition effects are becoming more logical and are integrated into their program designs. They understand 'if statements' for selection and attempt to combine these with other coding structures including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information while a program is executing, they are able to use and manipulate the value of variables. Children can make use of user inputs and outputs such as 'print to screen'. e.g. 2Code.	Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'if' statements, repetition and variables. They can trace code and use step-through methods to identify errors in code and make logical attempts to correct this. e.g. traffic light algorithm in 2Code. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.	Children recognise the main component parts of hardware which allow computers to join and form a network. Their ability to understand the online safety implications associated with the ways the internet can be used to provide different methods of communication is improving.	Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level.	Children are able to make improvements to digital solutions based on feedback. Children make informed software choices when presenting information and data. They create linked content using a range of software such as 2Connect and 2Publish+. Children share digital content within their community, i.e. using Virtual Display Boards.	Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact.

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Y4 Pupil 'I Can' Statements for Computing SOW Skills - Computer Science

= Sometimes = Mostly = Always **Name:** **Class:**

	Unit Theme	'I can'	Aut	Spr	Sum	Teacher Comments
Computer Science	4.1-Coding  4.2-Online Safety  4.5-Logo  4.7-Effective Searching  4.8-Hardware Investigators 	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)				
		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)				
		I can use timers within my program designs more accurately to create repetition effects. For example, I can create a counting machine. (4.1)				
		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)				
		I can use variables within my program and know how to change the value of variables. (4.1)				
		I can use the user inputs and output features within my program, such as 'Print to screen'. (4.1)				
		I can identify errors in my code by using different methods, such as steeping through lines of code and fixing them. (4.1)				
		I can read programs that contain several steps and predict the outcomes with increasing accuracy. (4.1, 4.5)				
		I recognise the main component parts of hardware which allow computers to join and form a network. (4.8)				
		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)				

Y4 Pupil 'I Can' Statements for Computing SOW Skills - Information Technology

= Sometimes = Mostly = Always **Name:** **Class:**

	Unit Theme	'I can'	Aut	Spr	Sum	Teacher Comments
Information Technology	4.1-Coding 	I understand the purpose of a search engine and the main features within it. (4.7)				
	4.3-Spreadsheets 	I can look at information on a webpage and make predictions about the accuracy of information contained within it. (4.7)				
	4.4-Writing for different audiences 	I can create and improve my solutions to a problem based on feedback. For example, create a program using 2Code. (4.1, 4.2)				
	4.6-Animation 	I can review solutions that others have created, using a checklist of criteria. (4.1, 4.2)				
	4.7-Effective Searching 	I can work collaboratively to create content and solutions. (4.1, 4.3, 4.4,48)				
	4.8- Making Music 	I can share digital content using a variety of applications such as: 2Blog, 2Email and Display Boards. (Across units)				

Y4 Pupil 'I Can' Statements for Computing SOW Skills - Digital Literacy

= Sometimes = Mostly = Always **Name:** **Class:**

	Unit Theme	'I can'	Aut	Spr	Sum	Teacher Comments
Digital Literacy	4.2-Online Safety  *Also discussed in other units.	I have a good understanding of the online safety rules we learn at school. (4.2 & across curriculum)				
		I can demonstrate how to use different online technologies safely. (4.2 & across curriculum)				
		I can demonstrate how to use a few different online services safely. (4.2 & across curriculum)				
		I know I have a right to privacy both on and offline. (4.2 & across curriculum)				
		I recognise that my wellbeing can be affected by how I use technology. (4.2 & across curriculum)				
		I can report with ease any concerns with content and contact online and know immediate strategies to keep safe. (4.2 & across curriculum)				