purple mash

Year 5
Skills Check

Progression Overview
&
‘I can’ skills statements

2simple

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.				

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Y5 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	Children may attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts. Children are able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code.	Children can translate algorithms that include sequence, selection and repetition into code with increasing ease and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures. They are combining sequence, selection and repetition with other coding structures to achieve their algorithm design.	When children code, they are beginning to think about their code structure in terms of the ability to debug and interpret the code later, e.g. the use of tabs to organise code and the naming of variables	Children understand the value of computer networks but are also aware of the main dangers. They recognise what personal information is and can explain how this can be kept safe. Children can select the most appropriate form of online communications contingent on audience and digital content, e.g. 2Blog, 2Email, Display Boards.	Children search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains.	Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.	Children 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. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.

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Y5 Pupil 'I Can' Statements for Computing SOW Skills - Computer Science

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

Computer Science	Unit Theme	'I can'	Aut	Spr	Sum	Teacher Comments
	5.1-Coding 	I can make more complex real-life problems into algorithms for a program. (5.1)				
		I can test and debug my programs as I work. (5.1, 5.5)				
		I can convert (translate) algorithms that contain sequence, selection and repetition into code that works. (5.1)				
	5.2-Online Safety 	I can use sequence, selection, repetition, and some other coding structures in my code. (5.1)				
		I can organise my code carefully for example, naming variables and using tabs. I know this will help me debug more efficiently. (5.1)				
		I can use logical methods to identify the cause of any bug with support to identify the specific line of code. (5.1)				
	5.5-Game Creator 	I know the importance of computer networks and how they help solve problems and enhance communication. (5.2)				
		I recognise the main dangers that can be perpetuated via computer networks. (5.2)				
		I can explain what personal information is and know strategies for keeping this safe. (5.2)				
		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)				

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Y5 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	5.1-Coding 5.2-Online Safety 5.3-Spreadsheets 5.4-Databases 5.5-Game Creator 5.6-3D Modelling 5.7-Concept Maps 5.8-Word Processing	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)				
		I can explain in detail how accurate, safe and reliable the content is on a webpage. (5.2)				
		I can make appropriate improvements to digital work I have created. (Across units)				
		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)				
		I can work collaboratively with others creating solutions to problems using appropriate software such as 2Code. (Across units)				
		I can use collaborative modes such as within 2Connect to work with others and share it. (5.7)				

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Y5 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	5.2-Online Safety 	I have a secure knowledge of online safety rules taught at school. (5.2 & across units)				
		I can demonstrate the safe and respectful use of different online technologies and online services. (5.2 & across units)				
		I always relate appropriate online behaviour to my right to have personal privacy. (5.2 & across units)				
		I know how to not let my mental wellbeing or others be affected by use of online technologies and services. (5.2 & across units)				