



## BAWB Federation Computing long-term plan

Computing is being taught through the Purple Mash computing scheme of work.

In Year 1 and 2 coding, the lessons need to be taught in sequence as each lesson introduces skills that are consolidated and developed in the next lesson. Therefore, it is proposed to teach coding for 11 weeks in Cycle A and none in Cycle B. It is also beneficial for all children to recap unit 1.1 in both cycles as this introduces children new to the class with key skills needed to make the most of Purple Mash.

Theme Key:															
	Coding and Computational thinking		Spreadsheets		Internet and Email		Art and Design		Music		Databases and graphing		Writing and Presenting		Communication and networks

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
YEAR 1 & 2 – CYCLE A	Unit 1.1 Online Safety & Exploring Purple Mash Weeks – 4 Programs – Various				Unit 2.5 Effective Searching Weeks – 3 Programs – Browser			Unit 1.4 Lego Builders Weeks – 3 Programs – 2DIY			Unit 1.9 Technology outside school Weeks – 2 Programs – Various			Unit 1.2 Grouping & Sorting Weeks – 2 Programs – 2DIY		Unit 2.6 Creating Pictures Weeks – 5 Programs – 2PaintAPicture			Unit 1.8 Spreadsheets Weeks – 3 Programs – 2Calculate			Unit 1.7 Coding Weeks – 6 Programs – 2Code				Unit 2.1 Coding Weeks – 5 Programs – 2Code							

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
YEAR 1 & 2 – CYCLE B	Unit 1.1 Online Safety & Exploring Purple Mash Weeks – 4 Programs – Various				Unit 1.5 Maze Explorers Weeks – 3 Programs – 2Go			Unit 2.4 Questioning Weeks – 5 Programs – 2Question, 2Investigate			Unit 2.2 Online Safety Weeks – 3 Programs – Various			Unit 1.6 Animated Story Books Weeks – 5 Programs – 2Create A Story			Unit 2.7 Making Music Weeks – 3 Programs – 2Sequence			Unit 2.3 Spreadsheets Weeks – 4 Programs – 2Calculate			Unit 1.3 Pictograms Weeks – 3 Programs – 2Count		Unit 2.8 Presenting Ideas Weeks – 4 Programs – Various									



KS1				
Two-year rolling programme: skills coverage				
Year A			Year B	
Autumn	Computer Science	Understand what algorithms are; how they are implemented as programmes on digital devices; and that programmes execute by following precise and unambiguous instructions. <b>(Unit 1.4 Lego Builders)</b>	Computer Science	Understand what algorithms are; how they are implemented as programmes on digital devices; and that programmes execute by following precise and unambiguous instructions. <b>(Unit 1.5: Maze Explorers)</b>
	Digital Literacy	Recognise common uses of information technology beyond school. <b>(Unit 1.9 Technology outside school)</b> 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. <b>(Unit 1.1: Online Safety; Unit 2.5: Effective Searching)</b>	Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. <b>(Unit 2.4: Questioning)</b>
Spring	Computer Science	Create and debug simple programmes. <b>(Unit 1.2 Grouping &amp; Sorting)</b>	Digital Literacy	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. <b>(Unit 1.1: Online Safety)</b>
	Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. <b>(Unit 1.8 Spreadsheets; Unit 2.6 Creating Pictures)</b>	Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. <b>(Unit 1.6 Animated Story Books, Unit 2.7 Making Music)</b>
Summer	Computer Science	Understand what algorithms are; how they are implemented as programmes on digital devices; and that programmes execute by following precise and unambiguous instructions. Create and debug simple programmes. Use logical reasoning to predict the behaviour of simple programmes. <b>(Units 1.7, 2.1: Coding)</b>	Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. <b>(Unit 2.3 Spreadsheets, Unit 1.3 Pictograms, Unit 2.8 Presenting Ideas)</b>



## BAWB Federation: Progression in Computing End of KS1 expectations

Text shown in **bold** is a key term. The three tables below feature the three key areas of learning: 1. Computer Science 2. Information Technology 3. Digital Literacy.

Computer Science			
Progression Statement	Working towards	Working at	Working at greater depth
Understand what algorithms are; how they are implemented as programmes on digital devices; and that programmes execute by following precise and unambiguous instructions.	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 explain that an algorithm is a set of instructions to complete a task. When <b>designing simple programs</b> , children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.	Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Their design shows that they are thinking of the desired task and how this translates into code. Children can identify an error within their program that prevents it following the desired algorithm and then fix it.
Create and debug simple programmes.	Children can work out what is wrong with a simple algorithm when the steps are out of order, e.g. <b>The Wrong Sandwich</b> in Purple Mash and can write their own simple algorithm, e.g. <b>Colouring in a Bird activity</b> . 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. <b>Bubbles activity in 2Code</b> .	Children can create a simple program that achieves a specific purpose. They can also identify and correct some errors, e.g. <b>Debug Challenges: Chimp</b> . Children's program designs display a growing awareness of the need for logical, programmable steps.	Children demonstrate the ability to design and code a program that follows a simple sequence, identifying and debugging errors, mostly independently.
Use logical reasoning to predict the behaviour of simple programmes.	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 <b>2Go challenges</b> will end up at the end of the program.	Children can identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.	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. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.

Information Technology			
Progression Statement	Working towards	Working at	Working at greater depth
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	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 <b>2Quiz</b> example (sorting shapes), <b>2Code</b> design mode (manipulating backgrounds) or using pictogram software such as <b>2Count</b> .	Children demonstrate an ability to organise data using, for example, a database such as <b>2Investigate</b> and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within <b>2Sequence</b> . Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.	Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database ( <b>2Question</b> ), using software such as <b>2Graph</b> . Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. <b>2Respond</b> .



Digital Literacy			
Progression Statement	Working towards	Working at	Working at greater depth
Recognise common uses of information technology beyond school.	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 can effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. <b>2Publish example template</b> . Children make links between technology they see around them, coding and multimedia work they do in school e.g. <b>animations, interactive code</b> and <b>programs</b> .	Children demonstrate the importance of having a secure password and not sharing this with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure.
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.	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.	Children know the implications of inappropriate online searches. Children begin to understand how things are shared electronically such as posting work to the Purple Mash display board. They develop an understanding of using email safely by using <b>2Respond</b> activities on Purple Mash and know ways of reporting inappropriate behaviours and content to a trusted adult.	Children understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as <b>2Email</b> in Purple Mash. They know more than one way to report unacceptable content and contact.