



Computing Scheme of Work

Overview

Purple Mash Computing Scheme of Work – Units by Year (non-mixed age)				

All Unit Summary

Predominant Area of Computing* Computer Information Digital Science Technology

*Most units will include aspects of all strands.

Early Years (Reception)

Rather then a scheme with set lessons, the early years resources are designed to integrate into the day-to-day routine and set-up of an early years setting with opportunities for using Mini Mash or Purple Mash as part of the Early Years curriculum to support children in working towards early learning goals.

In addition, there are units of suggested ideas that focus on computing skills specifically, that can also be provided as opportunities for learning as part of the topics in other areas to give children a sound basis to explore topics using technology and to be ready for progressing through the Computing curriculum. These are as follows and are designed to be integrated and linked to wider early years curriculum areas. These have been loosely classified into the three streams but there is overlap between all three streams.

Mouse and Trackpad Skills	Keyboard Skills	Drawing skills	Robots	Sounds	Photography
Technology Around Us	Hardware	Safety and Privacy	Quizzes	Using Purple Mash with an Individual Login	

Year 1

	Unit 1.1	Unit 1.2	Unit 1.3	Unit 1.4	Unit 1.5	Unit 1.6	Unit 1.7	Unit 1.8	Unit 1.9
	Online Safety & Exploring Purple Mash	Grouping & Sorting	Pictograms	Lego Builders	Maze Explorers	Animated Story Books	Coding	Spreadsheets	Technology outside school
Number of lessons	4	2	3	3	3	5	6	3	2
Main tool			2Count		2Go	2Create A Story	2Code	2Calculate	

	Unit 2.1	Unit 2.2	Unit 2.3	Unit 2.4	Unit 2.5	Unit 2.6	Unit 2.7	Unit 2.8
	Coding	Online Safety	Spreadsheets	Questioning	Effective Searching	Creating Pictures	Making Music	Presenting Ideas
Number of lessons	6	3	4	5	3	5	3	4
Main tool	2Code		2Calculate	2Question 2Investigate		2Paint A Picture	2Sequence	



	Unit 3.1	Unit 3.2	Unit 3.3	Unit 3.4	Unit 3.5	Unit 3.6	Unit 3.7	Unit 3.8	Unit 3.9
	Coding	Online safety	Spreadsheets	Touch Typing	Email (inc. email safety)	Branching Databases	Simulations	Graphing	Presenting
Number of lessons	6	3	3 4 lessons for Crash Course	4	6	4	3	2	5\6*
Main tool	2Code		2Calculate	2Туре	2Email	2Question	2Simulate	2Graph	PowerPoint or Google Slides

^{*}Platform dependent

Year 4

	Unit 4.1	Unit 4.2	Unit 4.3	Unit 4.4	Unit 4.5	Unit 4.6	Unit 4.7	Unit 4.8	Unit 4.9
	Coding	Online Safety	Spreadsheets	Writing for Different Audiences	Logo	Animation	Effective Searching	Hardware Investigators	Making Music
Number of lessons	6	4	6	5	4	3	3	2	4
Main tool	2Code		2Calculate		2Logo	2Animate			Busy Beats

Year 5

	Unit 5.1	Unit 5.2	Unit 5.3	Unit 5.4	Unit 5.5	Unit 5.6	Unit 5.7	Unit 5.8
	Coding	Online Safety	Spreadsheets	Databases	Game Creator	3D Modelling	Concept Maps	Word Processing
Number of lessons	6	3	6	4	5	4	4	8
Main tool	2Code		2Calculate	2Investigate	2DIY 3D	2Design & Make	2Connect	MS Word or Google Docs

Year 6

	Unit 6.1	Unit 6.2	Unit 6.3	Unit 6.4	Unit 6.5	Unit 6.6	Unit 6.7	Unit 6.8	6.9
	Coding	Online Safety	Spreadsheets	Blogging	Text Adventures	Networks	Quizzing	Understanding Binary	Spreadsheets
Number of lessons	6	2	5	4	5	3	6	4	8
Main tool	2Code		2Calculate	2Blog			2Quiz		Excel or Google Sheets

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Units by Year Group - Single Age

Classes

Predominant Area of Computing* Computer Information Digital Science Technology Literacy

Year 1

*Most units will include aspects of all strands.

It is recommended that you teach unit 1.1 first as it introduces Purple Mash.

Unit 1.1	Unit 1.2	Unit 1.3
Online Safety & Exploring Purple Mash	Grouping & Sorting	Pictograms
Number of lessons – 4	Number of lessons – 2	Number of lessons – 3
Programs – Various	Programs – 2DIY	Programs – 2Count
Unit 1.4	Unit 1.5	Unit 1.6
Offic 1.4	Offic 1.5	Offic 1.0
Lego Builders	Maze Explorers	Animated Story Books
Number of lessons – 3	Number of lessons – 3	Number of lessons – 5
Programs – 2DIY	Programs – 2Go	Programs – 2Create A Story
Unit 1.7	Unit 1.8	Unit 1.9
Coding	Spreadsheets	Technology outside school
Number of lessons – 6	Number of lessons – 3	Number of lessons – 2
Programs – 2Code	Programs – 2Calculate	Programs – Various

Predominant Area of Computing*							
	Computer		Information		Digital		
	Science		Technology		Literacy		

^{*}Most units will include aspects of all strands.

Unit 2.2	Unit 2.3
Online Safety	Spreadsheets
	Number of lessons – 4
Number of lessons – 3	
	Programs –
Programs – Various	2Calculate
Unit 2.5	Unit 2.6
Effective Searching	Creating Pictures
Number of lessons – 3	Number of lessons – 5
Programs – Browser	Programs –
	2PaintAPicture
Unit 2.8	
Presenting Ideas	
Number of lessons – 4	
Programs – Various	
	Number of lessons – 3 Programs – Various Unit 2.5 Effective Searching Number of lessons – 3 Programs – Browser Unit 2.8 Presenting Ideas Number of lessons – 4

Predominant Area of Computing*							
	Computer		Information		Digital		
	Science		Technology		Literacy		

^{*}Most units will include aspects of all strands.

Unit 3.1	Unit 3.2	Unit 3.3
Coding	Online safety	Spreadsheets
Number of lessons – 6	Number of lessons – 3	Number of lessons – 3*
Main Programs – 2Code	Programs – Various	Programs – 2Calculate
Unit 3.4	Unit 3.5	Unit 3.6
Touch Typing	Email (including email safety)	Branching Databases
Number of lessons – 4	Number of lessons – 6	Number of lessons – 4
Programs – 2Type	Programs – 2Email, 2Connect, 2DIY	Programs – 2Question
Unit 3.7	Unit 3.8	Unit 3.9
Simulations	Graphing	Presenting (with Microsoft PowerPoint or Google Slides)
Number of lessons – 3	Number of lessons – 2	N. I. C.
Programs – 2Simulate, 2Publish	Programs – 2Graph	Number of Lessons – 5 or 6 (version dependent) Main Program – MS PowerPoint or Google Slides

^{*}The Spreadsheets Crash-Course has 4 lessons

Predominant Area of Computing*				
	Computer	Informatio	n	Digital
Science Technology Literacy				

^{*}Most units will include aspects of all strands.

Unit 4.1	Unit 4.2	Unit 4.3
Coding	Online safety	Spreadsheets
Number of lessons – 6 Main Programs – 2Code	Number of lessons – 4 Programs – Various	Number of lessons – 6 Programs – 2Calculate
Unit 4.4	Unit 4.5	Unit 4.6
Writing for different audiences	Logo	Animation
Number of lessons – 5	Number of lessons – 4	Number of lessons – 3
Programs – 2Email, 2Connect, 2DIY	Programs – Logo	Programs – 2Animate
Unit 4.7	Unit 4.8	Unit 4.9
Effective Search	Hardware	Making Music
	Investigators	Number of Lessons – 4
Number of lessons – 3	Number of lessons – 2	Main Program – Busy
Programs – Browser	Namber of lessons - 2	Beats

Predominant Area of Computing*				
	Computer	Information		Digital
	Science	Technology		Literacy

^{*}Most units will include aspects of all strands.

Unit 5.1	Unit 5.2	Unit 5.3
Coding	Online safety	Spreadsheets
Number of lessons – 6	Number of lessons – 3	Number of lessons – 6
Main Programs – 2Code	Programs - Various	Programs – 2Calculate
Unit 5.4	Unit 5.5	Unit 5.6
Databases	Game Creator	3D Modelling
Number of lessons – 4		
	Number of lessons – 5	Number of lessons – 4
Programs – 2Question, 2Investigate	Programs – 2DIY 3D	Programs – 2Design and Make
Unit 5.7 Concept Maps	Unit 5.8 Word processing (with Microsoft Word or Google Docs)	
Number of lessons – 4	Number of Lessons – 8	
Programs – 2Connect	Main program – MS Word or Google Docs	

Predominant Area of Computing*				
	Computer		Information	Digital
	Science		Technology	Literacy

^{*}Most units will include aspects of all strands.

Unit 6.1 Coding	Unit 6.2 Online safety	Unit 6.3 Spreadsheets
Number of lessons – 6	Number of lessons – 2	Number of lessons – 5
Main Programs – 2Code	Programs - Various	Programs – 2Calculate
Unit 6.4	Unit 6.5	Unit 6.6
Blogging	Text Adventures	Networks
Number of lessons – 4 Programs – 2Blog	Number of lessons – 5 Programs – 2Code, 2Connect	Number of lessons – 3
Unit 6.7	Unit 6.8	Unit 6.9
Quizzing	Understanding Binary	Spreadsheets (with Microsoft Excel or
	Number of Lessons –	Google Sheets)
Number of lessons – 6 Programs – 2Quiz, 2DIY, Text Toolkit, 2Investigate	4 Main Program – 2Code	Number of Lessons – 8 Main program – MS Excel or Google Sheets



Tools by Unit

Year	Unit	Title	Tools used
Y1	1.1	Online Safety and Exploring Purple Mash	Avatar creator
			Paint Projects
			Writing Templates
			2Count (Pictograms)
			2Explore (Music)
	1.2	Grouping & Sorting	2Quiz
	1.3	Pictograms Lego Builders	2Connect (Mind Map)
			2Count (Pictograms)
	1.4		Paint Projects
			Writing Templates
			2Quiz
	1.5	Maze Explorers	2Go (coding)
	1.6	Animated Stories	2Create a Story
	1.7	Coding	2Code
	1.8	Spreadsheets	2Calculate
	1.9	Technology Outside School	Writing Templates

Year	Unit	Title	Tools used
Y2	2.1	Coding	2Code
	2.2	Online Safety	Writing Templates
			Displayboards
			2Respond (2Email)
	2.3	Spreadsheets	2Calculate
	2.4	Questioning	2Question (Binary
			Databases)
			2Calculate (spreadsheet)
			2Investigate (database)
	2.5	Effective Searching	2Quiz
			Writing Templates

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	2.6	Creating Pictures	2Paint a Picture Writing Templates
	2.7	Making Music	2Sequence (Music)
	2.8	Presenting Ideas	2Connect (Mind Map)
			2Create a Story (ebook)
			2Quiz
			Writing Templates

Year	Unit	Title	Tools used
Y3	3.1	Coding	2Code
	3.2	Online Safety	2Connect (Mind Map)
			2Blog (Blogging)
			Writing Templates
			Displayboards
	3.3	Spreadsheets	2Calculate
	3.4	Typing	2Type
	3.5	Email	2Email
	3.6	Branching Databases	2Question (Binary Databases)
	3.7	Simulations	2Simulate
			Writing Templates
	3.8	Graphing	2Graph
			Writing Templates
			2Blog (Blogging)
	3.9	Presenting (with Microsoft PowerPoint or Google Slides)	Microsoft PowerPoint or Google Slides

Year	Unit	Title	Tools used
Y4	4.1	Coding	2Code
	4.2	Online Safety	2Connect (Mind Map)
			2Publish Plus
			Displayboards
	4.3	Spreadsheets	2Calculate
	4.4	Writing for Different Audiences	Writing Templates
			2Simulate
			2Connect (Mind Map)
			2Publish Plus
	4.5	Logo	2Logo (text-based coding)
	4.6	Animation	2Animate
	4.7	7 Effective Searching	2Quiz
			2Connect (Mind Map)
	4.8	Hardware Investigators	2Quiz
			2Connect (Mind Map)
			Writing Templates
	4.9	Making Music	Busy Beats
			2Sequence
			Writing Templates

Year	Unit	Title	Tools used
Y5	5.1	Coding	2Code
	5.2	Online Safety	2Publish Plus
			Writing Templates
			Displayboards
			2Connect (Mind Map)
	5.3	Spreadsheets	2Calculate
	5.4	Databases	2Investigate (database)
			Avatar creator
	5.5	Game Creator	2DIY 3D
			Writing Templates
			2Blog (Blogging)
	5.6	3D Modelling	2Design and Make
			Writing Templates
	5.7	Concept Maps	2Connect (Mind Map)
	5.8	Word Processing (with Microsoft Word or Google Docs)	MS Word or Google Docs

Year	Unit	Title	Tools used
Y6	6.1	Coding	2Code
	6.2	Online Safety	2DIY 3D 2DIY 2Code
			2Blog (Blogging)
	6.3	Spreadsheets	2Calculate
	6.4	Blogging	2Blog (Blogging)
	6.5	Text Adventures	2Code
			2Connect (Mind Map)
			Writing Templates
	6.6	Networks	2Connect (Mind Map)
			Writing Templates
	6.7	Quizzing	2DIY
			2Quiz
			Text Toolkit

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Purple Mash Computing Scheme of Work – Adapting and refining the scheme

			2Investigate (database)
	6.8	Understanding Binary	2Connect (Mind Map)
			2Question (Binary
			Databases)
			Writing Templates
			2Code
	6.9	Spreadsheets (with Microsoft Excel or Google Sheets)	MS Excel or Google Sheets

Cultural Capital

Defining Cultural Capital

"As part of making the judgement about the quality of education, inspectors will consider the extent to which schools are equipping pupils with the knowledge and cultural capital they need to succeed in life. Our understanding of 'knowledge and cultural capital' is derived from the following wording in the national curriculum: 'It is the essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement."

(Ofsted's definition of cultural capital – Extract: Ofsted School Inspection Handbook 2019)

When we consider cultural capital in relation to a child starting their journey of learning in a school setting, it's the idea that they all have started school with their own experiences and knowledge. These experiences and knowledge will link to their culture and wider family. Pierre Bourdieu, a French sociologist, developed the concept of cultural capital in the 1960s, arguing heavily that children's attainment in schools was not defined by solely economic factors. Various research indicates a strong correlation between the value placed on children's cultures and the progress they make in formal education settings.

It's important to note that cultural capital shouldn't be defined as just academic achievement, cultural capital should be thought of enabling a child to grow into educated citizens who have had broad experiences and knowledge with a strong appreciation of human achievement and creativity.

Cultural capital is one of the key things that a child will utilise throughout their life in order to become successful in society.

How schools play a part

Schools have a duty to ensure that their children are given a rich educational diet that supports the notion of Cultural Capital.

Schools should consider several key things:

- Culturally relevant pedagogy: Embracing all their children's cultural identities, personal experiences, knowledge, and heritage in order to make learning more relevant to them and in thus doing so, giving rise to greater engagement and subsequently greater achievement.
- Culturally responsive teaching: Using a range of teaching strategies that supports children's personal experiences and cultural identities.
- Provision: Providing broad and rich experiences that their learners may not have experienced before, including the immersion of different cultures, traditions and approaches to everyday activities.
- Knowledge: Giving children a diet of knowledge that supports them in becoming educated citizens.

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Purple Mash Computing Scheme of Work and Cultural Capital

We understand the importance of supporting opportunities for all children. Our future workforce should reflect a broad cross section of society, including but not limited to: age, gender, race, religious beliefs, cognitive and physical differences. If we consider computing and the potential career opportunities and pathways this may lead to, it's vital that a broad workforce is in place, particularly when decisions on design and implementation of systems is required to limit bias. Computing should be integrated within different cultures and experiences of people, for example, farmers using technology to maximise yield of crops.

The Purple Mash Computing Scheme of Work is a comprehensive set of resources aligned to the National Curricula for Computing, Technology and Digital Competence. The Scheme of Work is intended to facilitate teachers in achieving the very best outcomes for all children. It exposes children to a wide variety of digital tools, technological skills and innovations to enable them to become informed members of the digital community.

It contains everything that is needed to deliver inspiring and engaging lessons whilst allowing for the flexibility to meet individual school needs. The scheme provides the scaffolding for teaching key skills alongside the flexibility to change the context to meet needs of individuals. For example, relating graphing to the local environment; tailoring blogging to individual cultures, experiences and interests. Lessons are delivered from lesson plans with accompanying slide shows. We have included additional units that go beyond the expectations of National Curricula, whilst also providing 'Catch-Up' units to close gaps in learning. The activity ideas for Early Years (Reception) show opportunities for using Mini Mash or Purple Mash as part of the Early Years classroom to support children in working towards early learning goals.

The scheme's flexibility is not just limited to adaptation of teaching approaches or contexts used within lessons. Functionality within the delivery platform allows for a range of devices to be used to access and deliver content. Additionally, features such as collaboratively enabled tools, means that children don't always require individual devices.

Supplementary resources such as Code Club and Digital Leaders give rise to opportunities for broadening horizons for all children regardless of their starting point. They support experience of leadership, developing skills and give exposure to new experiences and responsibilities such as leadership.

