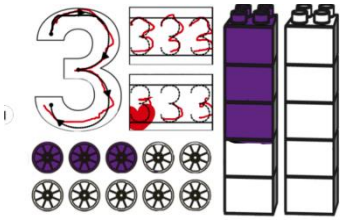
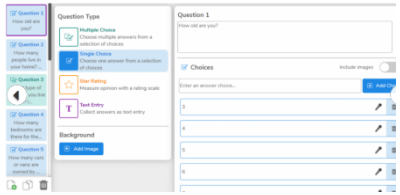
Computing Overview

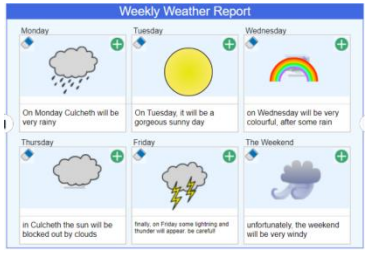


This document shows the Early Learning Goals and National Curriculum coverage for Computing. It highlights which aspect of the National Curriculum is to be planned for. At Twiss Green we follow the Purple Mash Scheme- which has been tailored to the schools needs and timetable requirements. The three main areas are- Computer Science, Information Technology and Digital Literacy (Online Safety)

This is the starting point for the planning of a sequence learning in each area. The placement of each objective has been carefully planned to allow for clear progression of knowledge, skills, techniques. A structure of MAIN, SUPPORTING and REVISITING units have been included to ensure that key skills are regularly revisited.



This document should be used alongside the individual Subject Knowledge Progression Map. Here the links to previous knowledge, specific knowledge, skills, vocabulary and any links to planning resources are highlighted. Finally, teachers should refer to the Purple Mash planning document for lesson ideas.



This is not a working document and should not be changed or altered without discussion with the Computing Lead.

Abbreviations

ELG	EYFS Early Learning Goals
NC	National Curriculum
Main	The main focus of the terms teaching- introducing new and building on current skills and knowledge: this unit must be taught.
Supporting	Complimentary unit to further develop learning from the Main unit- if time allows the unit can be covered to give more practice of skills taught
Revisiting	Aspects of these units should be taught as a way of revisiting previous learning

	AUT		SPR		SUM	
EYFS	Exploring Mini Mash *using all the tools* *Online Safety* All about me *Mashcams* Self Portrait Simple City videos	Exploring Mini Mash *using all the tools* Cold as Ice *2Paint* Simple City videos	Make your own rhythm Imagine & Invent *2Sequence* Simple City videos	Pictograms Food Glorious Food *2Graph* Simple City videos	Monkey Puzzle Story Living Things *2Create Story* Simple City videos	Robots! (Physical) *remote control cars & Beebots* Journeys *2Code* Simple City videos
YEAR 1	ONLINE SAFETY WILL BE REVISITED AT THE START OF EVERY UNIT					
	Main **Online Safety- Unit 1.1** NC- 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. **Technology outside school- Unit 1.9** NC- Recognise common uses of information technology beyond school		*Main* **Coding- Unit 1.7** NC- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. NC- Create and debug simple programs NC- Use logical reasoning to predict the behaviour of simple programs. NC- Use technology purposefully to create, organise, store, manipulate and retrieve digital content		*Main* **Pictograms- Unit 1.3** NC- Use technology purposefully to create, organise, store, manipulate and retrieve digital content	
			Supporting **Maze Explorers- Unit 1.5** NC- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. NC- Create and debug simple programs NC- Use logical reasoning to predict the behaviour of simple programs		*Supporting* **Spreadsheets- Unit 1.8** NC- Use technology purposefully to create, organise, store, manipulate and retrieve digital content	

	ONLINE SAFETY WILL BE REVISITED AT THE START OF EVERY UNIT		
YEAR 2	*Main* **Online Safety- Unit 2.2** N.C- 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. **Effective Searching- Unit 2.5** NC- Use technology purposefully to create, organise, store, manipulate and retrieve digital content NC- Recognise common uses of information technology beyond school	*Revisit -* **Coding Unit 1.7** *Main* **Coding- Unit 2.1** NC- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. NC- Create and debug simple programs NC- Use logical reasoning to predict the behaviour of simple programs.	*Main* **Spreadsheets- Unit 2.3** NC- Use technology purposefully to create, organise, store, manipulate and retrieve digital content *Supporting* **Creating Pictures- Unit 2.6** NC- Use technology purposefully to create, organise, store, manipulate and retrieve digital content

	ONLINE SAFETY WILL BE REVISITED AT THE START OF EVERY UNIT		
YEAR 3	*Main* **Online Safety- Unit 3.2** NC- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. **Email- Unit 3.5** NC- 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. NC- 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.	*Main* **Branching Databases- Unit 3.6** NC- 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.	*Revisit* **Coding- Unit 2.1** NC- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. NC- Create and debug simple programs NC- Use logical reasoning to predict the behaviour of simple programs. *Main* **Coding- Unit 3.1** NC- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. NC- Use sequence, selection and repetition in programs; work with variables and various forms of input and output. NC- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
		Supporting **Spreadsheets- Unit 3.3** NC- 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.	

	ONLINE SAFETY WILL BE REVISITED AT THE START OF EVERY UNIT		
YEAR 4	*Main* **Online Safety- Unit 4.2** NC- 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. NC- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. **Animation- Unit 4. 6** NC- 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.	*Main* **Effective Searching- Unit 4.7** NC- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. NC- 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.	*Revisit* **Coding- Unit 3.1** *Main* **Coding- Unit 4.1** NC- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. NC- Use sequence, selection and repetition in programs; work with variables and various forms of input and output. NC- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs NC- 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.
		Supporting **Making Music- Unit 4.9** NC- 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.	

YEAR 5	ONLINE SAFETY WILL BE REVISITED AT THE START OF EVERY UNIT		
	Main **Online Safety- Unit 5.2** NC- 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 NC- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. **Word or Google Doc Processing- Unit 5.8** NC- 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.	*Revisit* **Coding- Unit 4.1** *Main* **Coding- Unit 5.1** NC- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. NC- Use sequence, selection and repetition in programs; work with variables and various forms of input and output. NC- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. NC- 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.	*Main* **3-D Modelling- Unit 5.6** NC- 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.
			Revision **Databases- Unit 5.4** NC- 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.

	ONLINE SAFETY WILL BE REVISITED AT THE START OF EVERY UNIT		
YEAR 6	*Main* **Online Safety- Unit 6.2** NC- 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 NC- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. NC- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*. **Blogging- Unit 6.4** NC- 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 NC- 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 NC- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*.	*Revisit* **Coding- Unit 5.1** *Main* **Coding- Unit 6.1** NC- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. NC- Use sequence, selection and repetition in programs; work with variables and various forms of input and output. NC- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. NC- 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.	*Main* **Networks- Unit 6.6** NC- 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 **Understanding Binary- Unit 6.8** No NC