Westleigh Methodist Primary School – Computing Curriculum Overview

With God, all things are possible – Matthew 19:26

Love Teamwork Thankfulness Generosity Peace Forgiveness Equality Justice

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	E-safety unit to be taught 1st lesson of every half term (Digital Literacy) Rule of Law					
	Map making using Mini mash Teamwork Social	Retrieve information from the internet (support from an adult) Teamwork	Introduce Beebots Teamwork Social	Paint using Ipads	Retrieve information Teamwork Social	Coding on Mini Mash Teamwork Social
Reception	E-safety unit to be taught 1st lesson of every half term (Digital Literacy) Rule of Law					
	Keyboard mouse control Logging on Individual Liberty	Programmable toys/ cars/ Explore torches Teamwork Social	Logging on to Purple Mash independently Individual Liberty	Using Ipads and laptops to develop creativity Teamwork Social	Using cameras and media software Teamwork Social	Programmable Beebots Introduce Sphero coding Teamwork Social
Year 1	E-safety unit to be taught 1st lesson of every half term (Digital Literacy)					
	Unit 1.1 – Online Safety (Digital Literacy) -Use technology safely and respectfully, keeping personal information	**Unit 1.2 – Grouping and Sorting-** (Computer Science) Understand what algorithms are; how they are implemented as programs on digital	**Unit 1.4 – Lego Builders** (Computer Science) Understand what algorithms are; how they are implemented as programs on digital devices; and that	**Unit 1.5 – Maze Explorers** (Computer Science) Understand what algorithms are; how they are implemented as programs on digital	**Unit 1.7 – Coding** (Computer Science) Understand what algorithms are; how they are implemented as programs on digital devices; and that	**Unit 1.8 – Spreadsheets** (Information Technology) Use technology purposefully to create, organise,

	private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. Rule of Law	devices; and that programs execute by following precise and unambiguous instructions. **Unit 1.3 – Pictograms** (Information Technology) Use technology purposefully to create, organise, store, manipulate and retrieve digital content	programs execute by following precise and unambiguous instructions. Teamwork	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. **Unit 1.6 – Animated Story Books** (Information Technology) Use technology purposefully to create, organise, store, manipulate and retrieve digital content	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	store, manipulate and retrieve digital content **Unit 1.9 – Technology outside school** (Digital Literacy) Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school Rule of Law
Year 2	E-safety unit to be taught 1st lesson of every half term (Digital Literacy) **Unit 2.2** -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 Rule of Law					
	Unit 2.1 – Coding (Computer Science) Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	**Unit 2.3 – Spreadsheets** (Information Technology) Use technology purposefully to create, organise, store, manipulate and retrieve digital content	**Unit 2.4 – Questioning through database and pictograms** (Information Technology) Use technology purposefully to create, organise, store, manipulate and retrieve digital content	**Unit 2.5 – Effective Searching** (Digital Literacy) Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information	**Unit 2.7 – Making music** (Information Technology) Use technology purposefully to create, organise, store, manipulate and retrieve digital content Teamwork Social	**Unit 2.8 – Presenting Ideas** (Information Technology) Use technology purposefully to create, organise, store, manipulate and retrieve digital content

	Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs.			technology beyond school Rule of Law **Unit 2.6 – Creating Pictures** (Information Technology) Use technology purposefully to create, organise, store, manipulate and retrieve digital content Equality Social Mutual Respect		
Year 3	E-safety unit to be taught 1st lesson of every half term (Digital Literacy) **Unit 3.2** -Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. -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. Rule of Law					
	Unit 3.1 – Coding- (Computer Science) Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	**Unit 3.3 – Spreadsheets** (Information Technology) 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	**Unit 3.4 – Typing** (Information Technology) 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.	**Unit 3.5 – Email** (Digital Literacy) 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. Select, use and combine a variety of software	**Unit 3.7 – Simulations** (Information Technology) 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	**Unit 3.8 – Graphing** (Information Technology) 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

	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 Teamwork	accomplish given goals, including collecting, analysing, evaluating and presenting data and information.		(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 concerns about content and contact. **Unit 3.6 – Branching Databases** (Information Technology) 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	collecting, analysing, evaluating and presenting data and information.	collecting, analysing, evaluating and presenting data and information.

				given goals, including collecting, analysing, evaluating and presenting data and information. Equality Social Mutual Respect		
Year 4	E-safety unit to be taught 1st lesson of every half term (Digital Literacy) **Unit 4.2** - 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Rule of Law					
	Unit 4.1 – Coding (Computer Science) (Information Technology) 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.	**Unit 4.3 – Spreadsheets** (Information Technology) 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.	**Unit 4.4 – Using Computing programmes to write for different audiences** (Information Technology) 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.	**Unit 4.5 – Logo** (Computer Science) 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	**Unit 4.7 – Effective Searching**(Information Technology) 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	**Unit 4.8 – Hardware Investigators** (Computer Science) 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 logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs 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. Teamwork			in algorithms and programs **Unit 4.6 – Animations** (Information Technology) 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. Teamwork Social	evaluating digital content. Equality Social Mutual Respect	
Year 5	E-safety unit to be taught 1st lesson of every half term (Digital Literacy) **Unit 5.2** -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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Rule of Law					
	Unit 5.1 – Coding (Computer Science) Design, write and debug programs that accomplish specific	**Unit 5.3 – Spreadsheets** (Information Technology)	**Unit 5.4 – Databases** (Information Technology) Select, use and combine a variety of software	**Unit 5.5 – Game Creator** (Computer Science) Design, write and debug programs that accomplish specific goals, including	**Unit 5.6 – 3D Modelling** (Information Technology)	**Unit 5.7 – Concept Maps** (Information Technology)

	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. 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	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	(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 Teamwork Social Mutual Respect	controlling or simulating physical systems; solve problems by decomposing them into smaller parts. 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 Teamwork Social	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 Teamwork Social	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

	presenting data and information Teamwork					
Year 6	E-safety unit to be taught 1st lesson of every half term (Digital Literacy) **Unit 6.2** -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. -Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Rule of Law					
	Unit 6.1 – Coding (Computer Science) 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	**Unit 6.3 – Spreadsheets** (Information Technology) 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.	**Unit 6.4 – Blogging** (Information Technology) 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. 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	**Unit 6.5 – Text Adventures** (Computer Science) 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.	**Unit 6.7 – Quizzing** (Information Technology) 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. Teamwork Social Mutual Respect	**Unit 6.8 – Binary** (Computer Science) Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Teamwork Social Mutual Respect

	algorithms and programs. 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. Teamwork		responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*. Equality Social Individual Liberty	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. **Unit 6.6 – Networks** (Computer Science) 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. Teamwork Social		