

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	Retrieve information	Introduce Beebots	Paint using Ipads	Retrieve information	Coding on Mini Mash		
	Mini mash	from the internet	Teamwork		Teamwork	Teamwork		
	Teamwork	(support from an	Social		Social	Social		
	Social	adult)						
		Teamwork						
Reception		E-safe	<u> </u> ty unit to be taught 1 st lessor	l n of every half term (Digital L	l iteracy)			
			Rule	of Law				
	Keyboard mouse	Programmable toys/	Logging on to Purple	Using Ipads and laptops	Using cameras and	Programmable		
	control	cars/	Mash independently	to develop creativity	media software	Beebots Introduce		
	Logging on	Explore torches	Individual Liberty	Teamwork		Sphero coding		
	Individual Liberty	Teamwork		Social	Teamwork			
		Social			Social	Teamwork		
						Social		
Year 1		E-safe	<u> </u> ty unit to be taught 1 st lessor	l n of every half term (Digital L	l iteracy)			
	-Use technology safely	and respectfully, keeping	g personal information priva	te; identify where to go for h	elp and support when the	ey have concerns about		
		COI	ntent or contact on the inter	net or other online technolog	gies.			
	Rule of Law							
	Unit 1.1 –	Unit 1.2 – Grouping	Unit 1.4 – Lego Builders	Unit 1.5 – Maze	Unit 1.7 – Coding	Unit 1.8 -		
	Introduction to	and Sorting-	(Computer Science)	Explorers (Computer	(Computer Science)	Spreadsheets		
	Sphero coding	(Computer Science)		Science)		(Information		
	(Computer Science)		Understand what		Understand what	Technology)		
		Understand what	algorithms are; how they	Understand what	algorithms are; how			
		algorithms are; how	are implemented as	algorithms are; how they	they are implemented			

Understand what they are implemented programs on digital are implemented as as programs on digital Use techno	iogy
algorithms are; how as programs on digital devices; and that programs on digital devices; and that purposefull	•
they are implemented devices; and that programs execute by devices; and that programs execute by create, organic	
as programs on digital programs execute by following precise and programs execute by following precise and store, mani	
devices; and that following precise and unambiguous following precise and unambiguous retrieve dig	ital
programs execute by unambiguous instructions. unambiguous instructions. content	
following precise and instructions. instructions.	
unambiguous Teamwork Create and debug Unit 1.9 – T	•
instructions. Unit 1.3 – Pictograms Create and debug simple simple programs outside sch	
(Information programs (Digital Lite	racy)
Create and debug Technology) Use logical reasoning	
simple programs Use logical reasoning to to predict the Use techno	logy
Use technology predict the behaviour of behaviour of simple purposefull	y to
Use logical reasoning purposefully to simple programs. programs. create, organical reasoning purposefully to	nise,
to predict the create, organise, store, mani	pulate and
behaviour of simple store, manipulate and Unit 1.6 – Animated Use technology retrieve dig	ital
programs. retrieve digital Story Books (Information purposefully to content	
content Technology) create, organise,	
store, manipulate and Recognise of	ommon
Teamwork Use technology retrieve digital uses of info	
purposefully to create, content technology	beyond
organise, store, school	ŕ
manipulate and retrieve	
digital content Rule of La	w
Trule of Eur	**
Year 2 E-safety unit to be taught 1st lesson of every half term (Digital Literacy)	
-Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have conce	rns about
content or contact on the internet or other online technologies	
Rule of Law	
Unit 2.1 – Coding Unit 2.2 – Sphero Unit 2.4 – Questioning Unit 2.5 – Effective Unit 2.7 – Making Unit 2.8 – P	resenting
(Computer Science) Coding (Computer through database and Searching (Digital music (Information Ideas (Information	mation
Science) pictograms (Information Literacy) Technology Technology)
Understand what Technology)	,
algorithms are; how Understand what Use technology Use technology Use technology	logy
they are implemented algorithms are; how Use technology purposefully to create, purposefully to purposefully	
as programs on digital they are implemented purposefully to create, organise, store, create, organise, create, organise,	•
devices; and that as programs on digital organise, store, manipulate and retrieve store, manipulate and store, mani	-
programs execute by devices; and that digital content digital content	

	following precise and	programs execute by	manipulate and retrieve		retrieve digital	retrieve digital	
	unambiguous	following precise and	digital content	Pocognico common usos	content	content	
	instructions.	unambiguous	digital content	Recognise common uses of information		Content	
	mstructions.	instructions.			Teamwork		
	Connection and all all and	instructions.		technology beyond	Social		
	Create and debug	Cuanta and dalama		school			
	simple programs	Create and debug simple programs		Rule of Law			
	Use logical reasoning			Unit 2.6 – Creating			
	to predict the	Use logical reasoning		Pictures (Information			
	behaviour of simple	to predict the		Technology)			
	programs.	behaviour of simple					
		programs.		Use technology			
		Teamwork		purposefully to create,			
				organise, store,			
		Unit 2.3 –		manipulate and retrieve			
		Spreadsheets		digital content			
		(Information					
		Technology)		Equality Social			
		Use technology		Mutual Respect			
		purposefully to		Wataa Nespect			
		create, organise,					
		store, manipulate and					
		retrieve digital					
		content					
Year 3			v unit to be taught 1 st lessor	n of every half term (Digital L	iteracy)		
i cai 3	-Use technology safe			/unacceptable behaviour; ide	* *	eport concerns about	
	O,	,, , , ,		nd 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						
				g, analysing, evaluating and p			
		1 0		of Law	5		
	Unit 3.1 – Coding-	Unit 3.2 – Sphero	Unit 3.4 – Typing	Unit 3.5 – Email (Digital	Unit 3.7 – Simulations	Unit 3.8 – Graphing	
	(Computer Science)	Coding (Computer	(Information Technology)	Literacy)	(Information	(Information	
	Design, write and	Science)	Select, use and combine a	Understand computer	Technology)	Technology)	
	debug programs that	Design, write and	variety of software	networks, including the	Select, use and	Select, use and	
	I	1	l	1	1	l	

Internet; how they can

provide multiple services,

such as the World Wide

combine a variety of

internet services) on a

software (including

combine a variety of

internet services) on a

software (including

(including internet

services) on a range of

digital devices to design

accomplish specific

goals, including

controlling or

debug programs that

accomplish specific

goals, including

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

Teamwork

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

Teamwork

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 create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

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 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.

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.

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.

		and content that		Select, use and combine a					
		accomplish given		variety of software					
		goals, including		(including internet					
		collecting, analysing,		services) on a range of					
		evaluating and		digital devices to design					
		presenting data and		and create a range of					
		information.		programs, systems and					
		iniormation.		content that accomplish					
				given goals, including					
				collecting, analysing,					
				evaluating and presenting					
				data and information.					
				data and information.					
				Equality					
				Social					
				Mutual Respect					
				Wataar Kespect					
Year 4		E-safety unit to be taught 1 st lesson of every half term (Digital Literacy)							
real 4		- Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities							
	on a strong sompa	they offer for communication and collaboration.							
	-Use technology safe	-Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about							
	200 000 000 000	,,		nd contact.					
		Rule of Law							
	Unit 4.1 – Coding	Unit 4.2 – Sphero	Unit 4.4 – Using	Unit 4.5 – Logo	Unit 4.7 – Effective	Unit 4.8 – Hardware			
	(Computer Science)	Coding (Computer	Computing programmes	(Computer Science)	Searching(Information	Investigators			
	(Information	Science)	to write for different	Design, write and debug	Technology)	(Computer Science)			
	Technology)		audiences (Information	programs that accomplish					
		Design, write and	Technology)	specific goals, including	Understand computer	Understand computer			
	Design, write and	debug programs that		controlling or simulating	networks, including	networks, including			
	debug programs that	accomplish specific	Select, use and combine a	physical systems; solve	the Internet; how	the Internet; how			
	accomplish specific	goals, including	variety of software	problems by	they can provide	they can provide			
	goals, including	controlling or	(including internet	decomposing them into	multiple services, such	multiple services,			
	controlling or	simulating physical	services) on a range of	smaller parts.	as the World Wide	such as the World			
	simulating physical	systems; solve	digital devices to design		Web; and the	Wide Web; and the			
	systems; solve	problems by	and create a range of	Use sequence, selection	opportunities they	opportunities they			
	problems by	decomposing them	programs, systems and	and repetition in	offer for	offer for			
	decomposing them	into smaller parts.	content that accomplish	programs; work with	communication and	communication and			
	into smaller parts.		given goals, including	variables and various	collaboration.	collaboration.			

collecting, analysing, forms of input and Use sequence, evaluating and presenting Use sequence, selection and output. Use search technologies selection and repetition in data and information. repetition in programs; work with Use logical reasoning to effectively, appreciate programs; work with variables and various explain how some simple how results are forms of input and algorithms work and to variables and various selected and ranked. forms of input and output. detect and correct errors and be discerning in in algorithms and output. evaluating digital Use logical reasoning content. programs Use logical reasoning to explain how some **Equality** to explain how some simple algorithms simple algorithms work and to detect **Unit 4.6 – Animations** Social (Information Technology) work and to detect and correct errors in Mutual Respect and correct errors in algorithms and Select, use and combine a algorithms and programs variety of software programs Unit 4.3 -(including internet **Spreadsheets** services) on a range of Select, use and (Information digital devices to design combine a variety of Technology) software (including and create a range of internet services) on a programs, systems and range of digital Select, use and content that accomplish combine a variety of given goals, including devices to design and create a range of software (including collecting, analysing, internet services) on a evaluating and presenting programs, systems range of digital and content that data and information. accomplish given devices to design and Teamwork goals, including create a range of Social collecting, analysing, programs, systems and content that evaluating and presenting data and accomplish given information. goals, including collecting, analysing, **Teamwork** evaluating and presenting data and information.

E-safety unit to be taught 1st lesson of every half term (Digital Literacy)

				-
v		1	1	-
- 1	_	~		

-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 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

Unit 5.2 – Sphero 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 algorithms and programs

Teamwork Social

Unit 5.4 – Databases (Information Technolog

(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 5.5 – Game Creator (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.

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

Unit 5.6 – 3D Modelling (Information

(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

Unit 5.7 – Concept Maps (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 given goals, including collecting, analysing, evaluating and presenting data and information

		That F 2					
	range of digital	Unit 5.3 –					
	devices to design and	Spreadsheets (Information					
	create a range of	Technology)					
	programs, systems and content that	reciliology)					
		Soloct use and					
	accomplish given	Select, use and					
	goals, including	combine a variety of					
	collecting, analysing,	software (including					
	evaluating and	internet services) on a					
	presenting data and	range of digital					
	information	devices to design and					
	m 1	create a range of					
	Teamwork	programs, systems					
		and content that					
		accomplish given					
		goals, including					
		collecting, analysing,					
		evaluating and					
		presenting data and					
		information		of accomplicate to the Chinate Line	t a a \		
Year 6	E-safety unit to be taught 1 st lesson of every half term (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.						
	-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				
	Unit 6.1 – Coding	Unit 6.2 – Sphero	Unit 6.4 – Blogging	Unit 6.5 – Text	Unit 6.7 – Quizzing	Unit 6.8 – Binary	
	(Computer Science)	Coding (Computer	(Information Technology)	Adventures (Computer	(Information	(Computer Science)	
	Design, write and	Science)	Understand computer	Science)	Technology)	(
	debug programs that	Design, write and	networks, including the	Design, write and debug	Select, use and	Use search	
	accomplish specific	debug programs that	Internet; how they can	programs that accomplish	combine a variety of	technologies	
	goals, including	accomplish specific	provide multiple services,	specific goals, including	software (including	effectively, appreciate	
	controlling or	goals, including	such as the World Wide	controlling or simulating	internet services) on a	how results are	
	simulating physical	controlling or	Web; and the	physical systems; solve	range of digital	selected and ranked,	
	systems; solve	simulating physical	opportunities they offer	problems by	devices to design and	and be discerning in	
	problems by	systems; solve	for communication and	decomposing them into	create a range of	evaluating digital	
	,	problems by	collaboration.	smaller parts.	programs, systems	content.	

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 presenting data and information.

Teamwork

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 6.3 – 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.

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 concerns about content and contact*.

Equality Social Individual Liberty 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 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 and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Teamwork Social Mutual Respect Teamwork Social Mutual Respect

		mmunication and oration.	
	Teamy Social		