Woodlands Park Primary – Computing Provisional Curriculum Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Foundation Stage		 Online Safety Key themes from 'Safer Internet Day' using EYFS resources Lesson discussing themes from the assigned book: Smartie the penguin 	 <u>Unit – instructions making a jam</u> <u>sandwich</u> Introductions to algorithms 		Unplugged activities looking at Algorithms • Crazy character algorithms • Lego building algorithm activity • Dance move algorithms	Early Years introduction to computers Parts of a computer Computer repair shop Control a computer Www.iLearn2.co.uk/computerdiscoveryfr ee html
Year 1	 1.1 Technology around us Recognising technology in school and using it responsibly. Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school 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 Software/hardware: paintz.app 	Online SafetyA unit focusing on online safety including privacy of personal data, respect when online, the key theme from 'Safer Internet day' and any year group specific themes that need to be addressed.Also a lesson discussing themes from the assigned book: DigiDuckResources sourced from: Safer Internet day website, https://beinternetlegends.withgoogle.c om, Gooseberry Planet, Barefootcomputing.org• Use technology safely and respectfully, keeping personal information private; identify where 	 1.2 Digital painting Outcome could be based on topic Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally. Use technology purposefully to create, organise, store, manipulate and retrieve digital content Software/hardware:Paint 	 1.3 Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes. Understand what algorithms are, how they are implemented as programs on digital 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 Recognise common uses of information technology beyond school Software/hardware: Bee-bot or something similar 	 <u>1.5 Digital writing</u> <u>Outcome could be based on topic</u> Using a computer to create and format text, before comparing to writing non- digitally. Use technology purposefully to create, organise, store, manipulate and retrieve digital content 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 Software/hardware: Microsoft Word 	 1.6 Programming animation Designing and programming the movement of a character on screen to tell stories. Understand what algorithms are, how they are implemented as programs on digital 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 Use technology purposefully to create, organise, store, manipulate and retrieve digital content 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
Year 2	 2.1 Information Technology around us Identifying IT and how its responsible use improves our world in school and beyond. Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school 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 Software/hardware: Microsoft Powerpoint 	Online SafetyA unit focusing on online safety including privacy of personal data, respect when online, the key theme from 'Safer Internet day' and any year group specific themes that need to be addressed.Also a lesson discussing themes from the assigned book: HelloResources sourced from: Safer Internet day website, https://beinternetlegends.withgoogle.co m, Gooseberry Planet, Barefootcomputing.org•Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when	 2.2 Digital Photography Outcome could be based on topic Capturing and changing digital photographs for different purposes. Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school Software/hardware: Digital camera 	 2.3 Robot Algorithms Creating and debugging programs, and using logical reasoning to make predictions. Understand what algorithms are, how they are implemented as programs on digital 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 Software/hardware: Bee-bot or similar 	 2.5 Making Music - Taught by Sara Foley with Audacity Outcome could be based on topic Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. Use technology purposefully to create, organise, store, manipulate and retrieve digital content Software/hardware: Chrome Music Lab change to Garage Band 	 2.6 An Introduction to Quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz. Understand what algorithms are, how they are implemented as programs on digital 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 Use technology purposefully to create, organise, store, manipulate and retrieve digital content Software/hardware: Scratch

		they have concerns about content or contact on the internet or other online technologies				
Year 3	3.1 Connecting computers	<u>Online Safety</u>	3.2 Stop-frame Animation	3.3 Sequence in music - Taught by Sara	3.5 Desktop publishing	3.6 Events and actions
	 Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output 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 	 A unit focusing on online safety including privacy of personal data, respect when online, the key theme from 'Safer Internet day' and any year group specific themes that need to be addressed. Also a lesson discussing themes from the assigned book: Tek the Modern Cave Boy Resources sourced from: Safer Internet day website, https://beinternetlegends.withgoogle.com, Gooseberry Planet, Barefootcomputing.org Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 	 Outcome could be based on topic Capturing and editing digital still images to produce a stop-frame animation that tells a story. 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 Software/hardware: iMotion app 	 Foley with Garage band Creating sequences in a block-based programming language to make 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 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 	 Outcome could be based on topic Creating documents by modifying text, images, and page layouts for a specified purpose. 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 Software/hardware: Adobe Spark – change to publisher 	 Outcome could be based on topic Writing algorithms and programs that use a range of events to trigger sequences of actions. 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 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
Noor A	4.1 The Internet	Opling Safety	4.2 Audio aditing Taught by Sara Foloy	A A Data logging	4 5 Photo oditing	Software/hardware: Scratch
Year 4	<u>4.1 me internet</u>	<u>Onine Salety</u>	with Garage band	4.4 Data logging	Outcome could be based on topic	<u>4.6 Repetition in games</u> Outcome could be based on topic
	 Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. 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. 	A unit focusing on online safety including privacy of personal data, respect when online, the key theme from 'Safer Internet day' and any year group specific themes that need to be addressed. Also a lesson discussing themes from the assigned book: Webster's friend Resources sourced from: Safer Internet	 Outcome could be based on topic Capturing and editing audio to produce a podcast, ensuring that copyright is considered. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content 	 Recognising how and why data is collected over time, before using data loggers to carry out an investigation. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Select, use and combine a variety of contract induction interval. 	 Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled. 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 	 Using a block-based programming language to explore count-controlled and infinite loops when creating a game. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by docomparing them into smaller
	 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, 	 day website, <u>https://beinternetlegends.withgoogle.co</u> <u>m</u>, Gooseberry Planet, Barefootcomputing.org 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 Use technology safely, respectfully and responsibly; recognise 	sortware (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 Software/hardware: Data logger	 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; 	 but the straight of t

	evaluating and presenting data and		acceptable/unacceptable behaviour;		identify a range of ways to report	services) on a range of digital
	information		identify a range of ways to report		concerns about content and contact	devices to design and create a range
	• Use technology safely, respectfully		concerns about content and contact			of programs, systems and content
	and responsibly; recognise				Software/hardware: Paint.Net	that accomplish given goals,
	acceptable/unacceptable behaviour;		Software/hardware: Audacity changed to			including collecting, analysing,
	identify a range of ways to report		Garage band			evaluating and presenting data and
	concerns about content and contact					information
	Software/hardware: Google chrome					Software/hardware: Scratch
Year 5	5.1 Sharing information	Online Safety	5.2 Video editing	5.4 Flat-file databases	5.5 Vector drawing	5.6 Selection in quizzes
			Outcome could be based on topic			Outcome could be based on topic
	identifying and exploring now	A unit focusing on online safety including	Diagning conturing and aditing video to	Using a database to order data and	Creating images in a drawing program by	Evaluring coloction in programming to
	systems	online, the key theme from (Safer	produce a short film	create charts to answer questions.	using layers and groups of objects.	exploring selection in programming to
	Systems	Internet day' and any year group specific	produce a short him.	Use search technologies effectively	Select use and combine a variety of	
	 Design, write and debug programs 	themes that need to be addressed.	• Use search technologies effectively.	appreciate how results are selected	software (including internet	• Design, write and debug programs
	that accomplish specific goals.		appreciate how results are selected	and ranked, and be discerning in	services) on a range of digital	that accomplish specific goals.
	including controlling or simulating	Also a lesson discussing themes from the	and ranked, and be discerning in	evaluating digital content	devices to design and create a range	including controlling or simulating
	physical systems; solve problems by	assigned book: When Charlie McButton	evaluating digital content	Select, use and combine a variety of	of programs, systems and content	physical systems; solve problems by
	decomposing them into smaller	Lost Power	• Select, use and combine a variety of	software (including internet	that accomplish given goals,	decomposing them into smaller
	parts		software (including internet	services) on a range of digital	including collecting, analysing,	parts
	• Use sequence, selection, and	Resources sourced from: Safer Internet	services) on a range of digital	devices to design and create a range	evaluating and presenting data and	• Use sequence, selection, and
	repetition in programs; work with	bttps://beinternetlegends.withgoogle.co	devices to design and create a range	of programs, systems and content	information	repetition in programs; work with
	variables and various forms of input	m. Gooseberry Planet.	of programs, systems and content	that accomplish given goals,		variables and various forms of input
	and output	Barefootcomputing.org	that accomplish given goals,	including collecting, analysing,	Software/hardware: Google Drawings	and output
	Understand computer networks,		including collecting, analysing,	evaluating and presenting data and		Use logical reasoning to explain how
	including the internet; how they can	• Use technology safely, respectfully	evaluating and presenting data and	information		some simple algorithms work and to
	provide multiple services, such as	and responsibly; recognise	information			detect and correct errors in
	the World Wide Web, and the	acceptable/unacceptable behaviour;	Use technology safely, respectfully	Software/hardware: j2data Database		algorithms and programs
	opportunities they offer for	identify a range of ways to report	and responsibly; recognise			Select, use and combine a variety of
	communication and collaboration	concerns about content and contact	acceptable/unacceptable behaviour;			software (including internet
	 Select, use and combine a variety of 		identify a range of ways to report			services) on a range of digital
	software (including internet		concerns about content and contact			devices to design and create a range
	services) on a range of digital		Coffeendary Manual Minutes Charles to a			of programs, systems and content
	devices to design and create a range		Software/hardware: Microsoft photos			that accomplish given goals,
	of programs, systems and content					including collecting, analysing,
	that accomplish given goals,					evaluating and presenting data and
	including collecting, analysing,					Information
	information					Software/bardware: Scratch
	Ise technology safely, respectfully					Software/Hardware. Scraten
	and responsibly: recognise					
	acceptable/unacceptable behaviour:					
	identify a range of ways to report					
	concerns about content and contact					
	Software/hardware: Google slides –					
N C	change to powerpoint	Online Sefety	6.2 Web page creation	6 2 Variables in serves	6.4 Introduction to encodebasts	6 6 Sonsing
rear 6	Outcome could be based on topic		Outcome could be based on topic	o.s variables in games	Outcome could be based on topic	
		A unit focusing on online safety including		Exploring variables when designing and		Designing and coding a proiect that
	Recognising how the WWW can be used	privacy of personal data, respect when	Designing and creating webpages, giving	coding a game.	Answering questions by using	captures inputs from a physical device.
	to communicate and be searched to find	online, the key theme from 'Safer	consideration to copyright, aesthetics,		spreadsheets to organise and calculate	
	information.	Internet day' and any year group specific	and navigation.	Design, write and debug programs	data	Design, write and debug programs
		themes that need to be addressed.		that accomplish specific goals,		that accomplish specific goals,
	Design, write and debug programs		Use search technologies effectively,	including controlling or simulating	• Select, use and combine a variety of	including controlling or simulating
	that accomplish specific goals,	Also a lesson discussing themes from the	appreciate how results are selected	physical systems; solve problems by	software (including internet	physical systems; solve problems by
	including controlling or simulating	assigned book. But it's just a game	and ranked, and be discerning in	decomposing them into smaller	services) on a range of digital	decomposing them into smaller
	physical systems; solve problems by		evaluating digital content	parts	devices to design and create a range	parts
			1		or programs, systems and content	

 		-			-			
	decomposing them into smaller	Resources sourced from: Safer Internet	•	Select, use and combine a variety of	•	Use sequence, selection, and	that accomplish given goals,	•
	parts	day website,		software (including internet		repetition in programs; work with	including collecting, analysing,	1
•	Understand computer networks,	https://beinternetlegends.withgoogle.co		services) on a range of digital		variables and various forms of input	evaluating and presenting data and	1
	including the internet; how they can	<u>m</u> , Gooseberry Planet,		devices to design and create a range		and output	information	1
	provide multiple services, such as	Barefootcomputing.org		of programs, systems and content	•	Use logical reasoning to explain how		•
	the World Wide Web, and the			that accomplish given goals,		some simple algorithms work and to	Software/hardware: Microsoft Excel	1
	opportunities they offer for	Use technology safely, respectfully		including collecting, analysing,		detect and correct errors in		1
	communication and collaboration	and responsibly; recognise		evaluating and presenting data and		algorithms and programs		1
•	Use search technologies effectively,	acceptable/unacceptable behaviour;		information	•	Select. use and combine a variety of		•
	appreciate how results are selected	identify a range of ways to report	•	Use technology safely, respectfully		software (including internet		1
	and ranked, and be discerning in	concerns about content and contact		and responsibly: recognise		services) on a range of digital		1
	evaluating digital content			acceptable/unacceptable behaviour:		devices to design and create a range		1
	Select use and combine a variety of			identify a range of ways to report		of programs systems and content		1
	software (including internet			concerns about content and contact		that accomplish given goals		1
	services) on a range of digital					including collecting analysing		1
	devices to design and create a range		Sof	tware/hardware: Google site – may		evaluating and presenting data and		1
	of programs, systems and content		war	nt to use a Microsoft alternative		information		1
	that accomplish given goals		-			Lico tochnology cofoly, rosportfully		1
	including collecting analysing				•	and responsibly recognise		S
	avaluating and procenting data and							M
	evaluating and presenting data and					acceptable/unacceptable benaviour;		
	mormation					identify a range of ways to report		1
						concerns about content and contact		1
5	ontware/nardware: none					fturene (hendurene). Constah		1
					50	itware/nardware: Scratch		1
		1						L