Cycle A





Long Term Year Plan Computing Cycle A

Even-Odd years (e.g 2022-2023)

Computing

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
EYFS	To ensure that our children are year 1 ready by the end of EYFS, we have created a set of curriculum goals to achieve by the end of reception. The curriculum goals run alongside the ELGs and take into account where c						
	need to be to start year 1. Please see the EYFS Long Term plan.						
Year 1 and 2	Computer systems and networks		Computing systems and networks Online safety				
	What is a computer? – 3 lessons – 1, 2 and 5 only		Improving mouse skills - 3 Lessons - 1-3 Only		Online Safety – Year 1 – all 4 lessons		
	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Recognise common uses of information technology beyond school Equipment Lesson 1 - Paper based Lesson 2 - Paper based Lesson 5 - Paper based		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 Equipment Lesson 1 - Laptop		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 Equipment Lesson 1 - Paper based Lesson 2 - Paper based		
	Programming		Lesson 2 – Laptop Lesson 3 - Laptop Programming		Lesson 4 - Paper based		
	Programming		Programming				
	Algorithms unplugged – 3 lessons – 1,2 and 4 only		Algorithms and debugging – 4 lessons – 1, 2, 4 and 5 only				
	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions		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		Equipment				
	Use logical reasoning to predict the behaviour of simple programs		Lesson 1 – Laptop				
			Lesson 2 – Laptop				
	Equipment		Lesson 4 – Laptop				
			Lesson 5 – Paper based				

	Lesson 1 – Paper based		
	Lesson 2 – Paper based		
	Lesson 4 – Paper based		
	Lesson 5 - Paper based		
Year 3 and 4	Programming	Online Safety	Programming
	Programming Scratch – 4 lessons – 1, 2, 3 and 5 only	Online Safety - Year 3- all 4 lessons	Computational Thinking – 4 lessons – 1-4 only
	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Equipment Lesson 1 - Laptop Lesson 2 - Laptop Lesson 3 - Laptop Lesson 5 - Laptop	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and 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, recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Equipment Lesson 1 - Paper based Lesson 2 - Paper based Lesson 3 - Paper based Lesson 4 - Paper based	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Equipment Lesson 1 – Paper Lesson 2 – Laptop Lesson 3 – Laptop Lesson 4 – Laptop

	Duo numunia n		1	Creating Media
	Programming			Creating Media
	Further Coding with Scratch – 3			
	lessons - 2 - 4 only			Video Trailers – 4 lessons – 1 –
				4 only
	Design, write and debug programs			
	that accomplish specific goals,			Select, use and combine a
				·
	including controlling or simulating			variety of software
	physical systems; solve problems			(including internet services)
	by decomposing them into smaller			on a range of digital devices
	parts			to design and create a range
	·			of programs, systems and
	Select, use and combine a variety of			content that accomplish
				·
	software (including internet			given goals, including
	services) on a range of digital			collecting, analysing,
	devices to design and create a			evaluating and presenting
	range of programs, systems and			data and information
	content that accomplish given			
	goals, including collecting,			Equipment
				Equipment
	analysing, evaluating and presenting data and information			Lesson 1 – iPad
	prosenting data and injormation			Lesson 2 – iPad
	Facility			Lesson 3 – iPad
	Equipment			Lesson 4 – iPad
	Lesson 2 – Laptop			
	Lesson 3 – Laptop			
	Lesson 4 – Laptop			
Year 5 and 6	Online Safety		Computer systems and networks	Programming
	Online Safety – Year 5 – 3 lessons – 1,	E	Bletchley Park - 3 lessons - 1-3	Programming music – 4 lessons
	4 and 5			– 1-4 only
	4 unu 5			
		5	Select, use and combine a variety of	Design, write and debug
	Use search technologies effectively,		software (including internet	programs that accomplish
	appreciate how results are selected		services) on a range of digital	specific goals, including
	and ranked, and be discerning in		devices to design and create a	controlling or simulating
	evaluating digital content		range of programs, systems and	physical systems; solve problems
	Hee technology exfely was retfully a		content that accomplish given	by decomposing them into
	Use technology safely, respectfully and			smaller parts
	responsibly; recognise acceptable/unacceptable behaviour;		goals, including collecting,	Select, use and combine a
	identify a range of ways to report		analysing, evaluating and	variety of software (including
	concerns about content and contact		presenting data and information	internet services) on a range of
	Contents about content and contact			digital devices to design and
	Understand computer networks	ι	Jse technology safely, respectfully	create a range of programs,
	including the internet; how they		and responsibly; recognise	systems and content that
	-		acceptable/unacceptable	accomplish given goals,
	can provide multiple services, such			including collecting, analysing,
	as the world wide web; and the		behaviour; identify a range of	evaluating and presenting data
	opportunities they offer for		ways to report concerns about	and information
	communication and collaboration		content and contact	
				Equipment
	Equipment		Equipment	Lesson 1 – Laptop

L	Lesson 1 – iPads	Lesson 1 - Paper Based	Lesson 2 – Laptop	
L	Lesson 4 – iPads	Lesson 2 – Laptop	Lesson 3 – Laptop	
L	Lesson 5 – iPads	Lesson 3 – Laptop	Lesson 4 – Laptop	
D	Data Handling	Creating Media		
N	Mars Rover 1 – 3 lessons – 1, 2 and 4	History of Computers – 3 lessons –		
	only	3-5		
se o o a se g a d d	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 Equipment Lesson 1 - iPads Lesson 2 - Paper Lesson 4 - Paper	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		
		Equipment		
		Lesson 3 – iPads		
		Lesson 4 – Laptops		
		Lesson 5 – iPads		

Cycle B			SHAWLANDS PRIMARY SCHOOL Long Term Year Plan Computing Cycle B Odd-Even years (e.g 2021-2022)			Computing
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	To ensure that our children are year 1 ready by the need to be to start year 1.	ne end of EYFS, we have created	a set of curriculum goals to achieve by Please see the EYFS Long	• •	culum goals run alongside the ELGs (and take into account where children
Year 1 and 2	Programming		Programming		Online Safety	
	Bee-bots – 4 lessons – 1, 3, 4 and 5 only		Scratch Jr – 4 lessons – 1, 2, 4 and 5 only		Online Safety – Year 2 – all 4 lessons	
	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions		Understand what algorithms are; how they are implemented as programs on digital devices; and that		Recognise common uses of information technology beyond school	
	Create and debug simple programs Use logical reasoning to predict the		programs execute by following precise and unambiguous instructions		Use technology safely and respectfully, keeping personal information private; identify where to go for help and	
	behaviour of simple programs Equipment		Create and debug simple programs		support when they have concerns about content or contact on the internet or other	
	Lesson 1 – iPads		Use logical reasoning to predict the behaviour of		online technologies	
	Lesson 3 – iPads		simple programs		Use technology purposefully to create, organise, store,	
	Lesson 4 – iPads Lesson 5 – iPads		Use technology purposefully to create, organise, store, manipulate and retrieve		manipulate and retrieve digital content	
			digital content		Equipment Lesson 1 - Paper based	

Lesson 1 – iPads

Lesson 2 – iPads

Lesson 4 – iPads

Lesson 5 – iPads

Lesson 2 – Paper based

Lesson 3 – Paper based

Lesson 4 - Paper based

Creating Media Digital imagery – 3 lessons – 1 – 3 only Use logical reasoning to predict the behaviour of simple programs Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school Tinternational Space Station – 3 lessons – 1, 2 and 5 only Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
Use logical reasoning to predict the behaviour of simple programs Understand what algorithms are; how they are Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information Jessons – 1, 2 and 5 only Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
Use logical reasoning to predict the behaviour of simple programs Understand what algorithms are; how they are implemented as programs on organise, store, manipulate and retrieve digital content Recognise common uses of information Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
behaviour of simple programs Understand what algorithms are; how they are Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
Use technology purposefully to create, organise, store, manipulate and retrieve digital content programs execute by following precise and unambiguous Recognise common uses of information instructions implemented as programs on digital devices; and that programs execute by following precise and unambiguous
digital content programs execute by following precise and unambiguous Recognise common uses of information programs execute by following precise and unambiguous instructions
Recognise common uses of information precise and unambiguous instructions
Recognise common uses of information instructions
Use technology purposefully
Use technology safely and respectfully, to create, organise, store,
keeping personal information private; manipulate and retrieve identify where to go for help and support digital content
when they have concerns about content or
contact on the internet or other online Equipment
technologies Lesson 1 – laptops
Equipment Lesson 2 – paper based
Lesson 1 – iPads Lesson 5 – Paper based
Lesson 2 – iPads
Lesson 3 – iPads
Year 3 and 4 Computer Systems and Networks Computer Systems and Online Safety
Networks and the internet – 3 lessons – 1,3 Networks Online Safety – Year 4 – 4
and 5 only Collaborative learning – 4 lessons – 1, 2, 3 and 5
lessons – 1, 3, 4 and 5
Select, use and combine a variety of software Recognise common uses of
(including internet services) on a range of digital devices to design and create a range Select, use and combine a information technology beyond school
of programs, systems and content that variety of software (including
accomplish given goals, including collecting, internet services) on a range Use technology purposefully to
analysing, evaluating and presenting data create, organise, store,
and injormation
and create a range of content Equipment programs, systems and
content that accomplish given
Lesson 1 – Paper based goals, including collecting, Lesson 1 – Paper based Lesson 1 – Paper based
Lesson 3 - paper based analysing, evaluating and
Lesson 5 – Paper based presenting data and Lesson 2 – Paper based
information Lesson 3 – paper based
Equipment Lesson 5 - Paper based
Lesson 1 – Paper based
Lesson 3 – Paper based
Lesson 4 – paper based
Lesson 5 – Paper based

	Computer Systems and Networks		Data Handling	
	Journey inside a computer – 3 lessons – 1,2 and 5 only		Investigating weather – 3 lessons – 1, 3, 4 and 5	
	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Equipment Lesson 1 - paper based		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	
	Lesson 2 - paper based Lesson 5 - paper based		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	
			Lesson 1 – Laptop Lesson 3 – Laptop Lesson 4 – Laptop Lesson 5 – iPad	
Year 5 and 6	Computer systems and networks		Online Safety	
real 5 and 0	Search engines - 4 lessons - 1 - 4 Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Equipment Lesson 1 - Laptops Lesson 2 - Laptops Lesson 3 - Laptops Lesson 4 - Laptops		Online Safety - Year 6 - 4 lessons - 1, 2, 4 and 6 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	
			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	

Data Handling

Big data 1 - 4 lessons - 1, 3, 4 and 5

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

Equipment

Lesson 1 – Laptops

Lesson 3 – Laptops

Lesson 4 – Laptops

Lesson 5 – Laptops

Programming

Introduction to Python – 4 lessons – 1 - 4

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

Equipment

Lesson 1 – Laptops

Lesson 2 – Laptops

Lesson 3 – Laptops

Lesson 4 – Laptops

Equipment

Lesson 1 - Paper based

Lesson 2 - Paper based

Lesson 4 – Laptops

Lesson 6 – iPad/Paper Based

Creating Media

Stop motion animation – 4 lessons – 1 - 4

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

Equipment

Lesson 1 – iPad

Lesson 2 – iPad

Lesson 3 - iPad

Lesson 4 – iPad