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Cycle A

SHAWLANDS PRIMARY SCHOOL

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 children need to be to start year 1. Please see the EYFS Long Term plan.					
Year 1 and 2	**Computer systems and networks** **What is a computer? – 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 Recognise common uses of information technology beyond school **Equipment** **Lesson 1 – Paper based** **Lesson 2 – Paper based** **Lesson 5 – Paper based** **Programming** **Algorithms unplugged – 3 lessons – 1,2 and 4 only** 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 **Equipment**		**Computing systems and networks** **Improving mouse skills – 3 Lessons – 1-3 Only** 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** **Lesson 2 – Laptop** **Lesson 3 - Laptop** **Programming** **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 **Equipment** **Lesson 1 – Laptop** **Lesson 2 – Laptop** **Lesson 4 – Laptop** **Lesson 5 – Paper based**		**Online safety** **Online Safety – Year 1 – all 4 lessons** 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** **Lesson 3 – Paper based** **Lesson 4 – Paper based**	

	Lesson 1 – Paper based **Lesson 2 – Paper based** **Lesson 4 – Paper based** **Lesson 5 – Paper based**					
Year 3 and 4	**Programming** **Programming Scratch – 4 lessons – 1, 2, 3 and 5 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**		**Online Safety** **Online Safety – Year 3– all 4 lessons** 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**		**Programming** **Computational Thinking – 4 lessons – 1-4 only** 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**	

	Programming **Further Coding with Scratch – 3 lessons – 2 – 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 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 2 – Laptop** **Lesson 3 – Laptop** **Lesson 4 – Laptop**				**Creating Media** **Video Trailers – 4 lessons – 1 – 4 only** 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 – iPad** **Lesson 2 – iPad** **Lesson 3 – iPad** **Lesson 4 – iPad**	
Year 5 and 6	**Online Safety** **Online Safety – Year 5 – 3 lessons – 1, 4 and 5** 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 **Equipment**		**Computer systems and networks** **Bletchley Park – 3 lessons – 1-3** 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**		**Programming** **Programming music – 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 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 – Laptop**	

	Lesson 1 – iPads **Lesson 4 – iPads** **Lesson 5 – iPads**		**Lesson 1 – Paper Based** **Lesson 2 – Laptop** **Lesson 3 – Laptop**		**Lesson 2 – Laptop** **Lesson 3 – Laptop** **Lesson 4 – Laptop**	
	Data Handling **Mars Rover 1 – 3 lessons – 1, 2 and 4 only** 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**		**Creating Media** **History of Computers – 3 lessons – 3-5** 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 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 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 children need to be to start year 1. Please see the EYFS Long Term plan.					
Year 1 and 2	**Programming** **Bee-bots – 4 lessons – 1, 3, 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 Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs **Equipment** **Lesson 1 – iPads** **Lesson 3 – iPads** **Lesson 4 – iPads** **Lesson 5 – iPads**		**Programming** **Scratch Jr – 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 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 **Equipment** **Lesson 1 – iPads** **Lesson 2 – iPads** **Lesson 4 – iPads** **Lesson 5 – iPads**		**Online Safety** **Online Safety – Year 2 – all 4 lessons** 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 Use technology purposefully to create, organise, store, manipulate and retrieve digital content **Equipment** **Lesson 1 – Paper based** **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 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 – iPads** **Lesson 2 – iPads** **Lesson 3 – iPads**		**Data Handling** **International 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 technology purposefully to create, organise, store, manipulate and retrieve digital content **Equipment** **Lesson 1 – laptops** **Lesson 2 – paper based** **Lesson 5 – Paper based**			
Year 3 and 4	**Computer Systems and Networks** **Networks and the internet – 3 lessons – 1,3 and 5 only** 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 – Paper based** **Lesson 3 – paper based** **Lesson 5 – Paper based**		**Computer Systems and Networks** **Collaborative learning – 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 **Equipment** **Lesson 1 – Paper based** **Lesson 3 – Paper based** **Lesson 4 – paper based** **Lesson 5 – Paper based**		**Online Safety** **Online Safety – Year 4 – 4 lessons – 1, 2, 3 and 5** Recognise common uses of information technology beyond school Use technology purposefully to create, organise, store, manipulate and retrieve digital content **Equipment** **Lesson 1 – Paper based** **Lesson 2 – Paper based** **Lesson 3 – paper based** **Lesson 5 – Paper based**	

	Computer Systems and Networks **Journey inside a computer – 3 lessons – 1,2 and 5 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 – paper based** **Lesson 2 – paper based** **Lesson 5 – paper based**				**Data Handling** **Investigating weather – 3 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 **Lesson 1 – Laptop** **Lesson 3 – Laptop** **Lesson 4 – Laptop** **Lesson 5 – iPad**	
Year 5 and 6	**Computer systems and networks** **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** **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	

					Equipment **Lesson 1 – Paper based** **Lesson 2 – Paper based** **Lesson 4 – Laptops** **Lesson 6 – iPad/Paper Based**	
	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**		**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**	