



Manor Field
PRIMARY SCHOOL
Respect Believe Achieve



Manor Field Curriculum Intent: All pupils become socially and emotionally intelligent, as well as academically, so they can access all learning and life opportunities, now and in the future.

Computing Curriculum Coverage and Progression

<u>Year Group</u>	<u>Key Skills</u>	<u>Computer Science</u>	<u>Information technology (IT)</u>	<u>Digital Literacy</u>	<u>Online Safety</u>
1	<ul style="list-style-type: none"> -Click and drag with a mouse or trackpad -Switch on and shutdown a computer independently -Launch an application -Login and logout independently -Be able to print work using the Print icon -Use both hands on the keyboard -Load programs with support -Know that work can be saved and retrieved -Save work with support -Retrieve work with support 	<ul style="list-style-type: none"> -Understand what algorithms are. -Understand how algorithms 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. 	<ul style="list-style-type: none"> -Use technology purposefully to organise, store and retrieve digital content. -Use technology purposefully to create and manipulate digital content. 	<ul style="list-style-type: none"> - 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. - Recognise common uses of information technology beyond school. 	<ul style="list-style-type: none"> -Understand rules help us stay safe online - Suggest strategies for staying safe in different scenarios -Develop online safety rules for year 1 -Understand unkind behaviour online can affect people -Understand how people use the internet -Understand that using computer devices too often can be bad and take time out -Discuss what to do if they see or hear something online that upsets them -Understand what is meant by 'personal information' -Recognise anyone online who we don't know in real life is a stranger -Understand how we can protect

					<p>our personal information, including reporting worries to trusted adults.</p> <ul style="list-style-type: none"> -Understand what is meant by 'digital citizen' understand how to be responsible, respectful and safe online -Understand that being a good digital citizen means having a kind heart, a warning tummy and a thinking brain: all things that keep us safe online -Understand the importance of playing games in shared spaces where grown-ups are available for support
2	<ul style="list-style-type: none"> -To use word processing applications for text, layout and undo key. -Use search tools accurately. -Manipulate digital creation of pictures using tools -Use appropriate vocabulary -Load programs independently -Save work independently -Retrieve work independently -Plan what they are going to do -Make simple modifications to their work (edit) 	<ul style="list-style-type: none"> -Understand what algorithms are. -The child can understand how algorithms 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. 	<ul style="list-style-type: none"> -Use technology purposefully to organise, store and retrieve digital content. - Use technology purposefully to create and manipulate digital content. 	<ul style="list-style-type: none"> -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. -Recognise common uses of information technology beyond school. 	<ul style="list-style-type: none"> -Consider online safety scenarios encountered in Year 1 (both at school and at home) -Consider what strategies they might use if their usual trusted adult is not available - Develop their online safety rules so they are easily understood and appropriate for Year 2 pupils. -Begin to understand the concept of online bullying and the role of the bystander -Develop an understanding of the consequences of online bullying -Recall their online safety rules for reporting concerns and inappropriate behaviour. -Understand the very basic principles of how search engines work -Understand the key steps for searching the web safely

	<ul style="list-style-type: none"> -Practise keyboard skills using both hands, try to use more than two fingers, and try to use the thumb on the spacebar. 				<ul style="list-style-type: none"> -Understand how to report concerns when searching the web. -Understand that passwords are an important part of keeping information safe -Understand differences between strong and weak passwords -Understand that the way technology is used is as important as good online behaviour -understand that the way we use technology impacts the people around us -Recognise the PEGI age rating system for digital games -Understand that the system is useful for helping people decide which games are appropriate -Understand what to do if someone nearby is playing a game which is inappropriate for them.
3	<ul style="list-style-type: none"> -Know that work can be saved in different places eg network, writeable CD ROM, PenDrive -Be aware of folders and, with support, create and name new folders -Print work using the drop down menu -Use Print Preview -Make changes to their work (edit) -Select items and use cut, copy and paste as 	<ul style="list-style-type: none"> -Design, write and debug programs that accomplish specific goals. -Controlling or simulating physical systems. -Solve problems by decomposing them into smaller parts -Use sequence, selection and repetition in programs; work with variables. -Work with various forms of input and output -Use logical reasoning to explain how some simple algorithms work. 	<ul style="list-style-type: none"> - Select, use and combine a variety of software (including internet services) on a range of digital devices. - Design and create a range of programs, systems and content that accomplish given goals. - Collecting, analysing, evaluating and presenting data and information. -Use search 	<ul style="list-style-type: none"> -Use technology safely, respectfully and responsibly. -Recognise acceptable/unacceptable behaviour. -Know a range of ways to report concerns and inappropriate behaviour. -Be discerning in evaluating digital content. -Understand the opportunities networks offer for communication 	<ul style="list-style-type: none"> -Consider online safety scenarios encountered in Year 2 (both at school and at home) and appreciate how these new experiences can be used to refine their online safety rules -Consider what new strategies they can apply to online safety scenarios, such as calling Childline -Review and edit their online safety guidelines -Begin to understand that information shared online cannot always be controlled -Develop a deeper understanding of the consequences of online bullying

	necessary	<ul style="list-style-type: none"> -Use logical reasoning to detect and correct errors in algorithms and programs. -Understand computer networks including the internet. -Understand how networks can provide multiple services, such as the world wide web. 	technologies effectively.	and collaboration.	<ul style="list-style-type: none"> -Consider most useful and trustworthy websites -Understand that not all links are safe or trustworthy -Understand different ways to report concerns and inappropriate behaviour -Understand that every time we use the internet we leave a digital trail that can be found, copied or shared -Understand that the things we upload onto the internet last forever. -Understand that good online behaviour is important for making the internet an enjoyable place -Understand that email is a widely used form of digital communication that lasts forever. -Understand that internet identities are actively constructed -Recognise that internet identities can be misleading or not representative of the creator -Recall that personal information should not be shared by anyone online who we don't know in real life.
4	<ul style="list-style-type: none"> -Be able to choose an appropriate program to perform a task -Plan what they are going to do and evaluate the results -Understand that work can be saved in different places eg 	<ul style="list-style-type: none"> -Design, write and debug programs that accomplish specific goals. -Controlling or simulating physical systems. -Solve problems by decomposing them into smaller parts. -Use sequence, selection 	<ul style="list-style-type: none"> -Select, use and combine a variety of software (including internet services) on a range of digital devices. -Design and create a range of programs, systems and content 	<ul style="list-style-type: none"> -Use technology safely, respectfully and responsibly. -Recognise acceptable/unacceptable behaviour. -Know a range of ways to report concerns and inappropriate 	<ul style="list-style-type: none"> -Consider online safety scenarios encountered in Year 3 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules -Consider what new strategies they can apply to online safety scenarios, beyond talking to a trusted adult

	<p>network, writeable CD ROM, PenDrive</p> <ul style="list-style-type: none"> -Understand the use of folders and be able to create and name new folders -Understand and use the hierarchical file system consolidate keyboard skills -Possibly using typing tutor software 	<p>and repetition in programs; work with variables.</p> <ul style="list-style-type: none"> -Work with various forms of input and output. -Use logical reasoning to explain how some simple algorithms work. -Use logical reasoning to detect and correct errors in algorithms and programs. -Understand computer networks including the internet. -Understand how networks can provide multiple services, such as the world wide web. 	<p>that accomplish given goals.</p> <ul style="list-style-type: none"> -Collecting, analysing, evaluating and presenting data and information. -Use search technologies effectively. 	<p>behaviour.</p> <ul style="list-style-type: none"> -Be discerning in evaluating digital content. - Understand the opportunities networks offer for communication and collaboration. 	<ul style="list-style-type: none"> -Develop their online safety rules so they are easily understood -Understand that peer pressure can be a positive and negative influence -Understand that access to the internet is not the same for everyone -Recall ways to report concerns and inappropriate behaviour. -understand that because of the internet, information can be spread more quickly and reach more people now than at any time in the past -Understand that although information posted on the internet might not always be true or accurate, it lasts forever. -Understand the risks involved in clicking on and opening links on suspicious websites and in emails -Understand that hacking can be illegal and has consequences -Develop awareness of viruses and what to do if they think their account has been compromised. -Understand digital rights and responsibilities are important to ensure the internet is a great place for everyone -Understand that there are consequences for knowingly ignoring rights -Understand that virtual friends are still strangers that they do not know Apply knowledge of online safety to decide what information they, as virtual friends, can safely share
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					<p>online</p> <ul style="list-style-type: none"> -Recap rules for reporting suspicious or uncomfortable online situations.
5	<ul style="list-style-type: none"> -Be able to choose an appropriate program to perform a task. -Be able to combine and refine information from various sources. -Interpret and question the plausibility of information. 	<ul style="list-style-type: none"> -Design, write and debug programs that accomplish specific goals -Controlling or simulating physical systems. -Solve problems by decomposing them into smaller parts. -Use sequence, selection, and repetition in programs; work with variables. -Work with various forms of input and output. -Use logical reasoning to explain how some simple algorithms work. -Use logical reasoning to detect and correct errors in algorithms and programs. -Understand computer networks including the internet. -Understand how networks can provide multiple services, such as the world wide web. 	<ul style="list-style-type: none"> -Select, use and combine a variety of software (including internet services) on a range of digital devices. -Design and create a range of programs, systems and content that accomplish given goals. -Collecting, analysing, evaluating and presenting data and information. -Use search technologies effectively. 	<ul style="list-style-type: none"> -Use technology safely, respectfully and responsibly. -Recognise acceptable/unacceptable behaviour. -Know a range of ways to report concerns and inappropriate behaviour. -Be discerning in evaluating digital content. -Understand the opportunities networks offer for communication and collaboration. 	<ul style="list-style-type: none"> -Consider what new strategies they can apply to online safety scenarios, such as clicking the CEOP button -Recognise that online behaviour can have real life negative effects on other people -Understand that we must take responsibility for our own actions online, regardless of what other people are doing -Critically assess all information surrounding an online safety scenario to decide whether it constitutes online bullying -Use knowledge of online safety to reach a consensus on the appropriate response to an online incident. -Understand that some people get paid to endorse products online -Develop a discerning attitude to online content so that they can confidently reach their own conclusions -Appreciate value of trusted adults in helping them reach an informed conclusion -Understand that posting inappropriate information online can cause regret later -Understand how to manage their online reputation -Understand that, although information posted on the internet

					<p>might not always be true or accurate, it can last forever</p> <ul style="list-style-type: none"> -Understand that it is possible to search the internet for information about particular individuals. -Understand that copyright laws exist to protect original content creators -Understand that content they choose to use or upload on the internet may be subject to copyright laws -Understand different business models for online games understand that accounts for devices are linked to real-life bank accounts -Understand that some features in online games and apps cost real money - Understand that research, parental controls and device settings are tools we can use to game confidently.
6	<ul style="list-style-type: none"> -Be able to choose and combine the use of appropriate ICT tools to complete a task. -Be able to critically evaluate work as it progresses 	<ul style="list-style-type: none"> -Design, write and debug programs that accomplish specific goals. -Controlling or simulating physical systems. -Solve problems by decomposing them into smaller parts. -Use sequence, selection and repetition in programs; work with variables. -Work with various forms of input and output. 	<ul style="list-style-type: none"> -Select, use and combine a variety of software (including internet services) on a range of digital devices. -Design and create a range of programs, systems and content that accomplish given goals. -Collecting, analysing, evaluating and 	<ul style="list-style-type: none"> -Use technology safely, respectfully and responsibly. -Recognise acceptable/unacceptable behaviour. -Know a range of ways to report concerns and inappropriate behaviour. -Be discerning in evaluating digital content. 	<ul style="list-style-type: none"> -Consider online safety scenarios encountered in Year 5 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules -Consider what new strategies they can apply to online safety scenarios, such as using reporting buttons within websites and apps review and edit their online safety guidelines -Understand the negative

-Use logical reasoning to explain how some simple algorithms work.
-Use logical reasoning to detect and correct errors in algorithms and programs.
-Understand computer networks including the internet.
-Understand how networks can provide multiple services, such as the world wide web.

presenting data and information.
-Use search technologies effectively.

-Understand the opportunities networks offer for communication and collaboration.

consequences of sharing nude selfies
-Develop confidence in saying no when they are posed with a request for inappropriate and or indecent images of themselves
-Understand that once an image is online, it stays online forever
-Understand what is meant by nude selfies and learn that sending, sharing and storing inappropriate images of under 18s is a crime.
-Understand that most online sites and apps require an account holder to be a minimum of 13 years old
-Understand that they should check and adhere to the age restrictions of a site or app
-Understand why age restrictions apply to online communication tools
-Develop resilience to online behaviour and influences in an unfamiliar setting
-Learn how to use appropriate social networking sites safely.
-Understand that they need to respect other people's preferences when uploading images or video to the internet Understand that everyone has the right to privacy and can refuse permission for images or videos of themselves being uploaded to the internet
-Develop their understanding that content posted on the internet can last forever.
-Develop confidence in their ability to act appropriately when

					<p>confronted with unfamiliar situations involving technology and the internet</p> <ul style="list-style-type: none"> -Revisit the key concepts of digital citizenship. -Understand the risks involved with online gaming, including exposure to inappropriate content, grooming, bullying, trolling and the use of bribery tactics -Understand that research and parental controls and device settings are tools we can use to help us game safely and confidently apply their knowledge of safe gaming practices to plan and deliver an assembly to other children and/or parents -Consolidate everything they have learnt about age-appropriate online gaming in preparation for their transition to KS3.
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Manor Field School Computing Curriculum Coverage

Computing KS1

National Curriculum Requirements	Year Group	Theme	Term
Pupils should be taught to: <ul style="list-style-type: none"> - understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and 	1	‘Pumpkin soup’	Autumn 1
	2	‘Around the world in 40 days’	Autumn 1

unambiguous instructions			
Pupils should be taught to: - Create and debug simple programs.	2	'Around the world in 40 days'	Autumn 1
Pupils should be taught to: - Use logic reasoning to predict the behaviour of simple programs.	2	'Around the world in 40 days'	Autumn 1
Pupils should be taught to: - Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	1	'Arctic Adventures' 'The lion inside of us all'	Autumn 2 Summer 1
	2	'This is the greatest show' 'Stone girl, Bone girl'	Spring 1 Summer 1
- Recognise common uses of information technology beyond school	1	'Pumpkin Soup' 'Arctic Adventures'	Autumn 1 Autumn 2
	2	'Fire, Fire' 'This is the greatest show' 'Stone girl, Bone girl'	Autumn 2 Spring 1 Summer 1
Pupils should be taught to: - 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.	1	'Ruby's worries'	Spring 1
	2	'Fire, Fire' 'This is the greatest show' 'Stone girl, Bone girl'	Autumn 2 Spring 1 Summer 1

Aims (taken from The National Curriculum): *The national curriculum for computing aims to ensure that all pupils:*

- *Can understand and apply fundamental principles and concepts of computer science including abstraction, logic, algorithms and data representation*
- *Can analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems*
- *Can evaluate and apply information technology including new or unfamiliar technologies analytically to solve problems*
- *Are responsible, competent, confident and creative users of information and communication technology*

Objective	Requirements	Year Group	Theme Link	Term
	- Design, write and debug programs that accomplish specific goals including controlling and simulating physical systems; solve problems by decomposing them into smaller parts	Y3 Y3 Y4 Y4 Y4	Prehistoric Planet Rocking Underground Gustbusters Empire Explorers Invaders and Settlers	Autumn 1 Autumn 2 Autumn 1 Spring 1 Spring 2
	- Use sequence, selection and repetition in programs; work with variables and various forms of input and output	Y3 Y3 Y4	My Name is not refugee Mysterious Mayans Give Me A Sign	Spring 1 Summer 1 Autumn 2
	- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Y3 Y3	Prehisoric Planet Rocking Underground	Autumn 1 Autumn 2
	- Understand computer networks including the internet; how they	Y3	Flower Power	Spring 2

	can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration	Y4	Gutbusters	Autumn 1
	- Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content	Y3 Y4	Flower Power Tomb Raiders	Spring 2 Summer 2
	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 and accomplish given goals including collecting, analysing, evaluating and presenting data and information	Y3 Y3 Y4	Flower Power Amazon Adventures Rolling Rivers	Spring 2 Summer 2 Summer 1
	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	Y3 Y3 Y4	Prehistoric Planet My Name is Not Refugee Give Me A Sign	Autumn 1 Spring 1 Autumn 2

Computing UKS2 (Years 5 and 6)

Aims (taken from The National Curriculum): *The national curriculum for computing aims to ensure that all pupils:*

- *Can understand and apply fundamental principles and concepts of computer science including abstraction, logic, algorithms and data representation*
- *Can analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems*
- *Can evaluate and apply information technology including new or unfamiliar technologies analytically to solve problems*
- *Are responsible, competent, confident and creative users of information and communication technology*

Objective	Requirements	Year Group	Theme Link	Term
	<ul style="list-style-type: none"> - Design, write and debug programs that accomplish specific goals including controlling and simulating physical systems; solve problems by decomposing them into smaller parts 	Y6 5	Bombs, battles and bravery 'Ancient Greece' 'Angry Earth'	Autumn 1 & 2 Autumn 1 Autumn 2
	<ul style="list-style-type: none"> - Use sequence, selection and repetition in programs; work with variables and various forms of input and output 	Y6	Time To Shine	Summer 1
	<ul style="list-style-type: none"> - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs 	Y6	Bombs, battles and bravery	Autumn 1 & 2
	<ul style="list-style-type: none"> - 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 	5	'One giant leap' 'Pier to Pier'	Spring 1 Summer 2
	<ul style="list-style-type: none"> - Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content 	Y6	When The Mountains Roared	Spring 2
	Select, use and combine a variety of software including internet services on a range of	Y6 Y6	Heartbeat Castaways	Spring 1 Summer 2

	digital devices to design and create a range of programs, systems and content and accomplish given goals including collecting, analysing, evaluating and presenting data and information	5	'Precious Earth'	Summer 1
	Use technology safely, respectfully and responsibility; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	Y6	When The Mountains Roared	Spring 2

Ends