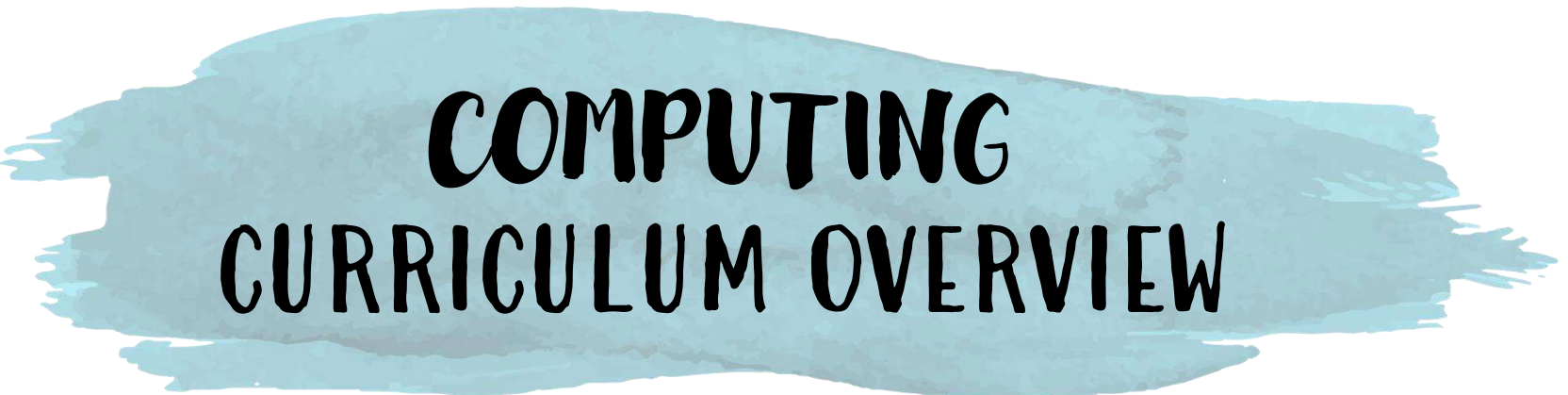




COMPUTING CURRICULUM OVERVIEW

COMPUTING

INTENT AND IMPLEMENTATION

INTENT:

At Corporation Road, our Computing curriculum is designed to equip pupils with the essential digital knowledge, skills and understanding needed to thrive in an increasingly digital world. Through our Computing curriculum, we intend to:

- Embed digital literacy and e-safety at the heart of our teaching, ensuring children understand how to use technology safely, respectfully, and responsibly.
- Teach pupils how to manage online risks, protect personal information, and recognise the impact of their digital footprint from an early age.
- Develop pupils' computational thinking and problem-solving skills, encouraging logical reasoning, pattern spotting, and step-by-step thinking through programming and coding opportunities.
- Enable children to use a wide range of information technology tools purposefully and effectively, including word processing, data handling, multimedia, and digital communication. We want our pupils to see technology not just as entertainment, but as a tool for learning, creating, and solving real-world problems.
- Foster a culture of creativity, collaboration, and critical thinking, encouraging pupils to design, debug, evaluate and adapt their digital work with increasing independence.

IMPLEMENTATION:

We will deliver high-quality, carefully planned lessons that build progressively from Early Years to Year 6, ensuring children become confident, creative and responsible digital citizens. We have chosen four key concepts which are colour-coded to give an 'at a glance guide' to demonstrate how a spiral curriculum develops throughout Early Years, Key Stage 1 and Key Stage 2 – it is recognised that these themes overlap.

COMPUTER SCIENCE	INFORMATION TECHNOLOGY
DIGITAL LITERACY	E-SAFETY

COMPUTING CONCEPTS

CONCEPTS:

COMPUTER SCIENCE

Computer Science is the study of how computers work; how they are designed and programmed and how we can give them instructions to solve problems. It helps children learn how to think logically, break tasks into steps and create programs using coding.

INFORMATION TECHNOLOGY

Information Technology is the application of computing. It is the use of computers and software to create, store and share content. Throughout this theme, pupils will use technology purposefully to organise, store and retrieve digital content. They will understand how computer networks, the internet and the World Wide Web work and how each of these can provide multiple services. They will learn how these forms of networking help people with communication and collaboration. Pupils will recognise how information technology is used beyond school, especially how it links to future employment opportunities.

DIGITAL LITERACY

Digital literacy is the ability to use technology safely, confidently and responsibly. It helps children understand how to find, evaluate, create and communicate information using a range of digital tools. Throughout this theme, pupils will 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.

E-SAFETY

E-safety, also known as online safety or internet safety, refers to the safe and responsible use of technology, including the internet and other electronic communication methods. It encompasses educating our children about the benefits, risks, and responsibilities associated with using technology. E-safety is about empowering our children to navigate the digital world in a way that minimizes potential harms and maximizes positive experiences.

COMPUTING WIDGETS



Computer Science



Information Technology



Digital Literacy



E-Safety

COMPUTING IMPACT

IMPACT:

At Corporation Road, we will know we have achieved our intent when our children have the digital knowledge, skills and understanding to thrive in an increasingly digital world. Furthermore, our children will understand how to use technology safely, respectfully and responsibly and as a consequence of this they will be able to manage online risks, protect their personal information and recognise the impact of their digital footprint. Additionally, we will have developed pupils' computational thinking and problem-solving skills and pupils will know how to use a wide range of information technology tools purposefully and effectively, such as word processing, data handling and multimedia. Also, children will be able to design, debug, evaluate and adapt their digital work. Finally, we know we will have achieved our intent as by the time our children leave our school, they will be well-prepared for the challenges of the digital age – equipped not just with skills, but with the ethical understanding and confidence to use technology positively, safely and effectively in all areas of their lives.

COMPUTER SCIENCE	INFORMATION TECHNOLOGY
DIGITAL LITERACY	E-SAFETY

COMPUTING NATIONAL CURRICULUM

PURPOSE OF STUDY:

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

AIMS:

The national curriculum for computing aims to ensure that all pupils:

- Can understand and apply the 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.

COMPUTING

KEY STAGE ONE

KEY STAGE ONE:

Pupils should be taught to:

- 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.
- 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.

COMPUTING

LINKS TO THE NATIONAL CURRICULUM

National Curriculum Coverage — Years 1 and 2		1.1 Technology around us	1.2 Digital painting	1.3 Moving a robot	1.4 Grouping data	1.5 Digital writing	1.6 Programming animations	2.1 Information technology around us	2.2 Digital photography	2.3 Robot algorithms	2.4 Pictograms	2.5 Digital music	2.6 Programming quizzes
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	✓	✓			✓	✓		✓	✓		✓	✓	✓
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.	✓				✓	✓		✓	✓	✓	✓		

COMPUTING

KEY STAGE TWO

KEY STAGE TWO:

Pupils should be taught to:

- 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.
- 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.
- 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.

COMPUTING

LINKS TO THE NATIONAL CURRICULUM

National Curriculum Coverage – Years 3 and 4							3.1 Connecting computers	3.2 Stop-frame animation	3.3 Sequencing sounds	3.4 Branching databases	3.5 Desktop publishing	3.6 Events and actions in programs	4.1 The internet	4.2 Audio production	4.3 Repetition in shapes	4.4 Data logging	4.5 Photo editing	4.6 Repetition in games
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									✓			✓			✓			✓
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											✓		✓	✓			✓	
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.								✓		✓			✓	✓			✓	

COMPUTING

LINKS TO THE NATIONAL CURRICULUM

National Curriculum Coverage – Years 5 and 6		5.1 systems and searching	5.2 Video production	5.3 Selection in physical computing	5.4 Flat-file database	5.5 Introduction to vector graphics	5.6 Selection in quizzes	6.1 Communication and collaboration	6.2 Webpage creation	6.3 Variables in games	6.4 Introduction to spreadsheets	6.5 3D modelling	6.6 Sensing movement
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				✓			✓			✓			✓
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			✓		✓				✓				
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.	✓	✓							✓	✓		✓	

COMPUTING EYFS IN THE CURRICULUM

UNDERSTANDING THE WORLD:

Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.

EYFS:

From September 2021, the early learning goal (ELG) in technology was removed from the EYFS statutory framework. Previously the ELG stated "Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes." Despite its exclusion from the renewed framework, technology undoubtedly has a role to play in Early Years, both in preparation for the National Curriculum and within the context of a technologically advanced society. At Corporation Road, we feel it is vital to expose children to the necessary skills and knowledge in computing to ensure they can be successful within the EYFS and well prepared for Key Stage 1.

Technology in Early Years is integrated into the daily running of Foundation Stage and includes taking a photograph with a camera or tablet; searching for information on the internet; playing games on the interactive whiteboard; exploring mechanical toys; using a Beebot; listening to music and interacting with age-appropriate software.

LITTLE ROCKETS, NURSERY & RECEPTION:

COMPUTER SCIENCE

DIGITAL LITERACY

INFORMATION TECHNOLOGY

E-SAFETY

LONG TERM PLAN

	Autumn 1 (Computer Systems And Networks)	Autumn 2 (Creating Media)	Spring 1 (Programming)	Spring 2 (Data And Information)	Summer 1 (Creating Media)	Summer 2 (Programming)
Little Rockets	Everyday Technology	Taking Photographs	Operating Skills	Collecting Data	Investigating	Programming
Nursery	Everyday Technology	Taking Photographs	Operating Skills	Collecting Data	Investigating	Programming
Reception	Keyboard/Mouse Skills	Presenting And Creating	Communicating And Collaborating	Data	Knowledge Of Technology	Computing And Coding
Year 1	Technology Around Us	Digital Painting	Moving A Robot	Grouping Data	Digital Writing	Programming Animations
Year 2	IT Around Us	Digital Photography	Robot Algorithms	Pictograms	Digital Music	Programming Quizzes
Year 3	Connecting Computers	Stop-Frame Animation	Sequencing Sounds	Branching Databases	Desktop Publishing	Events And Actions In Programs
Year 4	The Internet	Audio Production	Repetition In Shapes	Data Logging	Photo Editing	Repetition In Games
Year 5	Systems And Searching	Video Production	Selection In Physical Computing	Flat-File Databases	Vector Graphics	Selection In Quizzes
Year 6	Communication And Collaboration	Web Page Creation	Variables In Games	Spreadsheets	3D Modelling	Sensing Movement

COMPUTING

VOCABULARY PROGRESSION

VOCABULARY:

Key vocabulary has been identified for each unit of work. It is explicitly taught by staff and used by children. To ensure progression, the key vocabulary for each topic has been categorised into the four concepts that underpin the Computing curriculum at Corporation Road.

COMPUTER SCIENCE

Computer Science is the study of how computers work; how they are designed and programmed and how we can give them instructions to solve problems. It helps children learn how to think logically, break tasks into steps and create programs using coding.

INFORMATION TECHNOLOGY

Information Technology is the application of computing. It is the use of computers and software to create, store and share content. Throughout this theme, pupils will use technology purposefully to organise, store and retrieve digital content. They will understand how computer networks, the internet and the World Wide Web work and how each of these can provide multiple services. They will learn how these forms of networking help people with communication and collaboration. Pupils will recognise how information technology is used beyond school, especially how it links to future employment opportunities.

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Digital literacy is the ability to use technology safely, confidently and responsibly. It helps children understand how to find, evaluate, create and communicate information using a range of digital tools. Throughout this theme, pupils will 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.

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COMPUTER SCIENCE	Early Years			Key Stage One		Key Stage Two			
	Little Rockets	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Bee-Bot Forwards Backwards Turn Go Left Right	Bee-Bot Forwards Backwards Turn Go Instructions Directions Left Right Route Plan Change	Bee-Bot Forwards Backwards Turn Go Instructions Directions Left Right Route Plan Program Delete Reset Change Design Debugging	Bee-Bot Forwards Backwards Turn Clear Go Commands Instructions Directions Left Right Route Plan Algorithm Program ScratchJr Sprite Compare Programming Area Block Joining Start Background Delete Reset Predict Effect Change Value Design	Instruction Sequence Clear Unambiguous Algorithm Program Order Prediction Artwork Design Route Debugging Decomposition Command Run Start Outcome Blocks Actions Sprite Project Modify Change Build Match Compare Debug Features Evaluate Code	Scratch Programming Blocks Commands Code Sprite Costume Stage Backdrop Motion Turn Direction Go To Glide Sequence Event Task Design Run The Code Order Note Chord Algorithm Bug Debug Code Logic Move Resize Extension Block Pen up Set Up Action Errors	Program Commands Code Design Debug Pattern Repeat Repetition Count- Controlled Loop Value Trace Decompose Procedure Scratch Sprite Blocks Loop Repeat Value Infinite Loop Animate Event Block Duplicate Modify algorithm Refine Evaluate	Selection Condition Counter-Controlled Loop Outcomes Conditional Statement Algorithm Program Debug Task Design Input Implement Test Run Operator Cell Circuit Debug Action Output Condition Microcontroller USB Components Connection Infinite Loop Output Component Motor Repetition Crumble Controller LED Connect	Variable Change Name Value Set Design Event Algorithm Code Task Artwork Program Project Test Debug Improve Evaluate Share Assign Declare Microbit Input Process Output USB Trace Selection Condition Random Sensing Accelerometer Compass Create Plan Step Counter Navigation Direction

Digital Literacy	Early Years			Key Stage One		Key Stage Two			
	Little Rockets	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Count Object Colour Size Shape	Pictogram Count Object Group Colour Size Shape More Less The Same	Barcode Metal Detectors Automatic Doors Light Sensors Thermometers Pictogram Count Object Group Colour Size Shape More Less The Same	Object Label Group Search Image Property Colour Size Shape Value Data Set More Less Most Fewest Least The Same Amount Count Pictogram	More Than Less Than Most Least Common Popular Organise Data Object Tally Chart Votes Total Pictogram Enter Data Compare Objects Count Explain Attribute Group Same Different Conclusion Block Diagram Sharing	Attribute Value Questions Table Objects Branching Database Objects Equal Even Separate Structure Compare Order Organise Selecting Information Decision Tree	Data Table Layout Input Device Sensor Logger Logging Data Point Interval Analyse Dataset Import Export Logged Collection Review Conclusion	Database Data Information Record Field Sort Order Group Search Value Criteria Graph Chart Axis Compare Filter Presentation	Data Collecting Table Structure Spreadsheet Cell Cel Reference Data Item Format Formula Calculation Spreadsheet Input Output Operation Range Duplicate Sigma Propose Question Data Set Organised Chart Evaluate Results Sum Comparison Software Tools

INFORMATION TECHNOLOGY	Early Years			Key Stage One		
	Little Rockets	Nursery	Reception	Year 1	Year 2	
	Computer Mouse iPad Keyboard Paint Draw Sound Mobile Phone Video Photograph Camera	Technology Computer Mouse iPad Objects Keyboard Type Space Bar Paint Draw Sound Email Mobile Phone Video Photograph Webcam Laptop Communicate Camera	Technology Computer Mouse iPad Objects Pictures Rearrange Keyboard Type Space Bar Move Around Navigate Paint Draw Sound Sequence Email Mobile Phone Hand-Held Walkie-Talkies Recording Devices Video Webcam Laptop Communicate Record	Technology Computer Mouse Trackpad Keyboard Screen Double-Click Typing Paint Program Tool Paintbrush Erase Fill Undo Shape Tools Line Tool Fill Tool Undo Tool Brush Style Brush Size Pictures Painting Computers Word Processor Keys Letters Numbers Space Text Cursor Capital Letters Tool Bar Bold Italic Underline Font Redo Format	Music Quiet Loud Feelings Emotions Pattern Rhythm Pulse Pitch Tempo Notes Create Beat Instrument Framing Lighting Information Technology Computer Barcode Scan	Open Edit Device Camera Photograph Capture Image Digital Landscape Portrait Framing Subject Compose Light sources Flash Focus Background Filter Format

INFORMATION TECHNOLOGY

KEY STAGE TWO

YEAR 3

Digital Device
Input
Process
Output
Program
Digital
Non-Digital
Connection
Network
Switch
Server
Wireless Access Point
Cables
Sockets
Text
Images
Advantages
Disadvantages
Communicate
Font
Style
Landscape
Portrait
Orientation
Placeholder

Template
Layout
Content
Desktop
Publishing
Copy
Paste
Purpose
Benefits
Animation
Flip Book
Stop-Frame
Sequence
Image
Photograph
Setting
Character
Events
Consistency
Evaluation
Media
Import
Transition

YEAR 4

Internet
Network
Router
Security
Switch
Server
Website
Web Page
Web Address
Routing
Web Browser
World Wide
Web
Content
Links
Files
Use
Download
Sharing
Ownership
Permission
Information
Accurate
Honest
Content
Advertisements
Audio
Microphone
Speaker
Image
Retouch
Clone
Select
Foreground
Zoom
Undo
Font

Headphones
Input Device
Output Device
Sound
Podcast
Edit
Trim
Align
Layer
Import
Record
Playback
Selection
Load
Save
Export
MP3
Evaluate
Feedback
Image
Digital Crop
Rotate
Undo
Save
Adjustments
Effects
Colours
Hue
Saturation
Combine
Made Up
Cut
Copy
Paste
Alter
Background

YEAR 5

System
Connection
Digital
Input
Processes
Storage
Output
Search
Search Engine
Refine
Index
Bot
Ordering
Links
Algorithm
Search Engine
Optimization
(SEO)
Web Crawler
Content
Creator
Selection
Ranking
Vector
Drawing Tools
Object
Toolbar
Vector Drawing
Move
Resize
Colour
Rotate
Duplicate
Copy
Soom
Select
Align

Modify
Layers
Order
Paste
Group
Ungroup
Reuse
Reflection
Video
Audio
Camera
Talking Head
Panning
Close-Up
Video Camera
Microphone
Lens
Mid-Range
Long Shot
Moving Subject
Angle
Static
Zoom
Pan
Tilt
Storyboard
Filming
Review
Import
Split
Trim
Clip
Edit
Reshoot
Delete
Export
Evaluate

YEAR 6

Communication
Data
Address
Internet
Protocol (IP)
Domain Name
Server (DNS)
Header
Data Payload
Chat
Explore
Slide Deck
Reuse
Remix
Collaboration
Internet
Public
Private
One-Way
Two-Way
One-To-One
One-To-Many
Website
Web Page
Browser
Media
Hypertext
Markup
Language
(HTML)
Logo
Layout
Header
Purpose
Media
Copyright
Fair Use

Home Page
Preview
Evaluate
Device
Google Sites
Breadcrumb
Trail
Navigation
Hyperlink
Subpage
Implication
External Link
Embed
TinkerCAD
Two-
Dimensional
Three-
Dimentional
Shapes
Select
Move
Perspective
View
Handles
Resize
Lift
Lower
Rotate
Duplicate
Group
Placeholder
Hollow
Choose
Combine
Construct
Modify
URL

E-SAFETY	Early Years			Key Stage One	
	Little Rockets	Nursery	Reception	Year 1	Year 2
	Safety Rules Online	Safety Rules Online Internet Kind Unkind Help Stranger Unsafe	Safety Rules Online Internet Kind Unkind Help Stranger Unsafe Trusted Adult	Safety Rules Online Internet Kind Unkind Help Stranger Trusted Adult Report Online Friend Share Risk	Safety Rules Online Internet Help Stranger Trusted Adult Report Share Risk Block Username Password Private Privacy Permission Responsible Consent

E-SAFETY

Key Stage Two				
Year 3	Year 4	Year 5	Year 6	
Safety Rules Online Internet Stranger Trusted Adult Report Risk Block Username Password Private Privacy Permission Responsible Consent Pop-Up Inappropriate Influence Childline Bot Disinformation Scam Cyber Bullying Virus	Safety Rules Online Internet Stranger Trusted Adult Report Risk Block Username Password Private Privacy Permission Responsible Consent Pop-Up Inappropriate Influence Childline Bot Disinformation Scam Cyber Bullying Virus Phishing Pirate Sites Terms And Conditions Secure Website Cookie Fake News Digital Footprint Digital Citizenship	Stranger Trusted Adult Report Block Privacy Consent Pop-Up Inappropriate Childline Bot Disinformation Scam Cyber Bullying Virus Phishing Pirate Sites Terms And Conditions Secure Website Cookie Fake News Digital Footprint Digital Citizenship Malware Password Managers Hackers Geolocation Hoax Identity Theft Firewall Spam Online Identity Online Reputation Adware Digital Well-Being Social Media Netiquette	Stranger Trusted Adult Report Block Privacy Consent Inappropriate Childline Bot Scam Cyber Bullying Phishing Pirate Sites Secure Website Cookie Fake News Digital Footprint Digital Citizenship Malware Password Managers Hackers Geolocation Hoax Identity Theft Firewall Spam Online Identity Online Reputation Adware	Digital Well-Being Social Media Netiquette Copyright Data Protection Encryption Two-Factor Authentication Online Grooming British Board Of Film Classification (BBFC) Unsubscribing Trolling Troll Trojan Spyware Sexting Ransomware Pharming Misinformation Pan-European Game Information (PEGI) Grooming Digital Personality Cyber Bullying Creeping Coercion Artificial Intelligence

COMPUTING SMSC

SPIRITUAL DEVELOPMENT

Computing supports children's spiritual development by enabling them to learn more about other people and their beliefs that may be different from their own. In addition, computing gives children a wider range to access other's beliefs and opinions, allowing them to practice the values of tolerance and empathy.

MORAL DEVELOPMENT

Computing supports children's moral development by teaching them how to use the internet safely and responsibly. Recognising what is appropriate and inappropriate on the internet is linking their experience online to their experience in everyday life and what to do if they experience something inappropriate online. As a consequence, pupils understand their online actions can have long term impacts for themselves and others.

SOCIAL DEVELOPMENT

Collaborative works and group projects in computing support children's social development. Through discussion in lessons, children will practice cooperative interactions, listening to other's opinions and ideas. The children are actively encouraged to celebrate other's achievements. Children are required to have an awareness of social media platforms and the advantages these sites have as well as the numerous problems they can cause within peer groups.

CULTURAL DEVELOPMENT

Computing provides children with the opportunity to learn about different cultures through the use of the internet and online platforms. In addition, it provides children with the opportunity to develop a sense of awe and wonder at human ingenuity. Furthermore, the development of technology has impacted different cultures and backgrounds in different ways.

COMPUTING FUNDAMENTAL BRITISH VALUES

DEMOCRACY

Our curriculum provides opportunities for children to learn about the importance of democratic processes in the use and development of technology. For example, they can learn about how the internet is governed and regulated, or how open-source software is developed through collaboration and sharing. Teachers encourage children to discuss and reflect on these processes, and to participate in decision-making and problem-solving activities that involve the use of technology.

RULE OF LAW

Withing the computing curriculum, pupils learn about algorithms, programming and control, which help them to develop their skills of following rules and shows them the importance of following simple instructions. In addition, pupils are taught about the implications of posting negative comments on social media, and the implications of cyber bullying. Pupils are taught how to use the internet safely, at school and home and how to report any images/messages deemed to be inappropriate. Pupils are taught how to leave a positive digital footprint. Furthermore, the computing curriculum emphasizes the importance of responsible use of technology, including respect for intellectual property, privacy, and security. Children learn about the laws and regulations that govern the use of technology, such as copyright law, data protection regulations, and online safety guidelines.

INDIVIDUAL LIBERTY

Our computing curriculum, provides opportunities for children to express their creativity and explore their own interests and passions through the use of technology . For example, they learn to code, design and create digital content, and use digital tools for personal expression and communication. Teachers promote this value by encouraging children to take ownership of their learning and to develop their own digital identities.

MUTUAL RESECT & TOLERANCE

Through computing, pupils are taught about their etiquette online and how to positively engage in an online community. In addition, our curriculum provides opportunities for children to learn about and appreciate the diversity of cultures and beliefs through the use of technology. For example, they learn about digital art from different cultures, or use technology to explore and celebrate cultural traditions and customs. Teachers promote this value by incorporating activities and resources that highlight cultural diversity, and by encouraging children to engage with and learn from others with different backgrounds and perspectives.

COMPUTING VIRTUES

KINDNESS

Kindness is modelled in every classroom during computing lessons, ensuring that children feel safe to ask for support when needed. Children are eager to be kind and support each other when it comes to using different forms of technology. Children are encouraged to communicate in a kind and positive manner via technology.

RESPECT

In computing children are encouraged to demonstrate respect for others' ideas and viewpoints, particularly in online interactions. In addition, it is important that we promote and demonstrate respect for the equipment and materials we use in lessons.

HONESTY

It is important that children are honest and follow rules and principles when using programmes and engaging in online activity to ensure they are kept safe.

COURAGE

Children are encouraged to be courageous about trying new methods within technology.

RESILIENCE

Children are encouraged to be resilient as trial and error are important aspects of computing to enable children to problem solve to find solutions.

INDEPENDENCE

We want our children to become autonomous, independent users of computing technologies. We encourage this by giving our children the opportunity to independently create media, programme, collect and interpret data and problem-solve.

COMPUTING ASSESSMENT

EYFS ASSESSMENT

There is no specific ELG for Technology following the September 2021 reforms. As a result, we consider children's readiness for the Year 1 Computing Curriculum by assessing the following:

- Children are beginning to be able to give and follow a precise set of instructions.
- Children can name some forms of technology used at home and in school.
- Children have had the opportunity to play with and explore codable toys.
- Children know what to do and who to tell if they see or hear something that worries them online.
- Children are able to interact with age-appropriate programs for painting and word processing.

FORMATIVE ASSESSMENT

Every lesson includes formative assessment opportunities for teachers to use. These opportunities are listed in the lesson plan and are included to ensure that misconceptions are recognised and addressed if they occur. They vary from teacher observation or questioning to marked activities.

The learning objectives and success criteria are introduced on the slides at the beginning of every lesson. At the end of every lesson, pupils are invited to assess how well they feel they have met the learning objectives using thumbs up, thumbs down or thumbs sideways.

SUMMATIVE ASSESSMENT

Every unit includes a summative assessment framework in the form of either a multiple-choice quiz (MCQ) or a rubric. Pedagogically, when we assess, we want to ensure that we are assessing a pupil's understanding of computing concepts and skills, as opposed to their reading and writing skills. Therefore, the assessments in

Key Stage One are mostly rubric-based, though MCQs are introduced in Year 2. A rubric is a tool to help teachers assess learning and highlights whether the pupil is working towards the expected standard, at the expected standard or above the expected standard for computing.

CAREERS IN THE CURRICULUM

	Autumn 1 (Computer Systems And Networks)	Autumn 2 (Creating Media)	Spring 1 (Programming)	Spring 2 (Data And Information)	Summer 1 (Creating Media)	Summer 2 (Programming)
Reception	Admin Assistant	Broadcaster	Teacher	Data Entry Administrator	IT Sales Specialist	Coder
Year 1	Technology Advisor	Graphic Designer	Robotics Engineer	Data Analyst	Digital Publisher	Animator
Year 2	IT Technician	Photographer	AI Engineer	Data Scientist	Audio Engineer	Software Developer
Year 3	IT Project Manager	Motion Graphics Designer	Music Producers	Database Administrator	Multimedia Journalist	Narrative Designer
Year 4	Cloud Architect	Sound Engineer	Computer Game Tester	Data Engineer	Digital Imaging Technician	Computer Game Developer
Year 5	Network Engineers	Videographer	UI Designer	Data Protection Officer	Brand Designer	Digital Copywriter
Year 6	Social Media Management	Web Designer/Developer	UX Designer	Accountant	Architect	Cyber Specialist

COMPUTING READING IN THE CURRICULUM

Little Rockets	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
This Is How We Stay Safe	Old Macdonald Had A Phone	The Screen Thief	Chicken Clicking	Techosaurus Saves The School	Troll Stinks	Staying Safe Online (Computer Kids)	Staying Safe Online (Usborne Life Skills)	How To Be More Hedgehog