Newall Green Primary School
Aiming High To Reach Our Goals
Firbank Road, Newall Green, Wythenshawe, Manchester, M23 2YH
Tel: 0161 437 2872 Fax: 0161 436 2178 www.newallgreen.manchester.sch.uk
Cherry Tree Trust

Computing Policy

June 2026

Version 6

Document Control	
Title:	Computing Policy
Date:	June 2026
Supersedes:	Version 4 (ICT and e-Safety Policy)
Amendments:	
Related Policies / Guidance:	Online Safety Policy Assessment Policy Marking Policy EYFS Policy Code of Conduct SEN Policy Equality /Inclusion Policy Pupil Privacy Policy Preventing radicalization and risk assessment policy Safeguarding Whistleblowing Staff Code of Conduct
Review:	June 2027 – or sooner if needed

Approved by:	Governors	**Date:**	21/07/2026
Last reviewed on:	June 2026		
Next review due by:	June 2027		

Contents

Intent

At Newall Green Primary School, our computing curriculum is designed to equip all pupils with the knowledge, skills and understanding needed to thrive in an increasingly digital world. Through a carefully sequenced and progressive curriculum, we aim to develop confident, responsible and creative users of technology who can apply computational thinking to solve problems, communicate effectively and express themselves through digital media.

Our curriculum supports the development of the school's five key skills for life: **problem solving, teamwork, self-management, self-belief and communication**. Pupils are encouraged to think logically, work independently and collaboratively, persevere when faced with challenges, and communicate their ideas using a range of digital tools and technologies.

The curriculum is based on the National Centre for Computing Education's **Teach Computing Curriculum**, which follows a spiral approach to learning. Key concepts are revisited and built upon throughout a pupil's journey through school, enabling children to develop a secure understanding of computer science, information technology and digital literacy. Through this approach, pupils gain knowledge and skills across a broad range of areas including programming, data and information, computer systems and networks, creating media, and the impact of technology on society.

We believe that online safety is fundamental to all aspects of computing. Pupils are taught how to use technology safely, respectfully and responsibly through both the computing curriculum and wider safeguarding provision. Online safety education is supported by the Education for a Connected World framework through ProjectEVOLVE, enabling pupils to develop the knowledge, behaviours and critical thinking skills needed to navigate the online world safely and confidently.

We recognise that technology continues to evolve rapidly and plays an increasingly significant role in education, employment and everyday life. Through our curriculum, pupils are encouraged to think critically about the opportunities and challenges presented by emerging technologies, including artificial intelligence, and to understand the ethical and responsible use of digital tools.

We also recognise the importance of physical computing in helping children understand how digital systems work. Through hands-on experiences with programmable devices, sensors and data logging equipment, pupils apply their programming knowledge in meaningful and engaging contexts, developing creativity, resilience and problem-solving skills.

We are committed to ensuring that all pupils, including those with SEND, can access and succeed within Computing. Through adaptive teaching, appropriate scaffolding and personalised support where required, we strive to ensure that every child develops the confidence and digital skills needed to participate successfully in modern society.

By the time pupils leave Newall Green Primary School, they will have developed the knowledge, skills and confidence to use technology effectively, understand its role in the modern world, and become responsible digital citizens who are prepared for the next stage of their education and future lives.

Implementation

Curriculum

(See Appendices 1–4 for curriculum progression and coverage)

Computing is taught throughout Year 1 to 6, using the National Centre for Computing Education's Teach Computing Curriculum. The curriculum provides full coverage of the National Curriculum for Computing through a carefully sequenced and progressive programme of study.

Computing is typically taught for one hour per week. However, where appropriate, units may be delivered through a blocked approach to enable pupils to engage more deeply with practical activities, projects and physical computing experiences.

The Teach Computing Curriculum follows a spiral approach to learning, enabling pupils to revisit key concepts and skills throughout their primary education. Each revisit builds upon previous learning, allowing pupils to deepen their understanding and make meaningful connections between different areas of computing. This approach supports long-term retention and ensures that pupils develop increasing confidence and competence over time.

The curriculum is organised through a range of interconnected strands including:

- Computer Systems and Networks
- Creating Media
- Data and Information
- Programming

Online safety is taught both through dedicated computing lessons and through ProjectEVOLVE, ensuring pupils develop the knowledge and skills required to navigate the online world safely, respectfully and responsibly. Learning is planned to ensure progression in both knowledge and skills. Pupils are provided with opportunities to explore concepts through discussion, practical activities, problem-solving tasks, unplugged learning and independent application. Teachers make explicit links between new learning and previously taught concepts to strengthen understanding and support retrieval.

Teachers utilise the planning, learning graphs, assessment materials and supporting resources provided within the Teach Computing Curriculum. Learning graphs are used to help pupils understand the knowledge and skills being developed within each unit and to support progression across the curriculum.

From Year 1 onwards, pupils record aspects of their learning within dedicated Computing books. These books provide evidence of learning and progression, whilst practical outcomes, programming projects and digital work may also be evidenced through screenshots, photographs and saved digital files where appropriate. The curriculum is further enriched through opportunities for physical computing, including the use of programmable devices, Crumble controllers, BeeBots and data-logging equipment. These experiences allow pupils to apply their programming knowledge in meaningful contexts and develop a deeper understanding of how digital systems operate.

Early Years Foundation Stage

In the Early Years Foundation Stage, computing is taught through a combination of adult-led activities, child-initiated exploration and purposeful opportunities within continuous provision. Learning is carefully planned to support the Early Years Foundation Stage Framework whilst providing the foundations for future learning in computing.

The school uses Purple Mash Mini Mash resources within EYFS to provide the foundations for the Teach Computing Curriculum. These resources provide age-appropriate opportunities for children to explore technology, develop digital skills and begin to understand how technology is used in everyday life. Learning is designed to prepare pupils for the National Centre for Computing Education's Teach Computing Curriculum, which begins in Year 1.

Particular emphasis is placed on developing the fundamental skills of mouse control, keyboard awareness and basic digital navigation to support pupils' transition into Key Stage 1.

Children are provided with opportunities to:

- Explore and use a range of digital technologies, including computers, tablets, programmable toys, cameras and audio-recording equipment.
- Develop control of a mouse, touchscreen and keyboard through increasingly independent use of technology.
- Create digital content, including pictures, stories, photographs, recordings and simple multimedia projects.
- Develop early computational thinking skills through sequencing, predicting, problem solving and programming simple programmable devices.
- Learn how technology is used in homes, schools and the wider community.
- Develop an understanding of how to use technology safely, responsibly and respectfully with adult support.

Computing in EYFS contributes particularly to the areas of Understanding the World, Physical Development, Communication and Language, and Expressive Arts and Design. Opportunities to use technology are embedded throughout the learning environment and are incorporated into both adult-directed and child-initiated learning experiences.

Through these experiences, children develop the knowledge, skills and confidence required to access the Key Stage 1 computing curriculum successfully.

Key Stage 1 and Key Stage 2

Computing is taught throughout Key Stage 1 and Key Stage 2 using the National Centre for Computing Education's Teach Computing Curriculum. Lessons are typically delivered weekly by class teachers, allowing pupils to develop knowledge and skills progressively over time. Where appropriate, units may be delivered through a blocked approach to maximise opportunities for practical application, project work and physical computing activities.

Lessons are carefully sequenced to build upon prior learning and follow the progression set out within the Teach Computing Curriculum. Teachers use a range of teaching approaches, including direct instruction, practical activities, unplugged learning, collaborative tasks, problem-solving activities and independent application, to ensure pupils develop both knowledge and confidence in computing.

Pupils are encouraged to think computationally by breaking down problems, recognising patterns, developing algorithms and evaluating solutions. Learning opportunities are designed to promote creativity, resilience and critical thinking, enabling pupils to become increasingly independent learners.

The school makes use of a variety of technologies to support learning, including desktop computers, laptops, tablets, programmable devices and physical computing equipment. Pupils are provided with opportunities to create digital content, write and debug programs, analyse data, explore computer systems and networks, and develop an understanding of how technology impacts everyday life.

The school's dedicated computing suite is used where appropriate to ensure pupils have access to the hardware and software required to develop key computing skills. This is particularly important for units involving keyboard and mouse skills, programming and the effective use of productivity software. Particular emphasis is placed on developing keyboard fluency, efficient use of digital tools and an understanding of selecting the most appropriate technology for different tasks.

Computing books are used from Year 1 onwards to record learning, support retrieval of prior knowledge and demonstrate progression across the curriculum. Evidence may include written reflections, planning, evaluations, screenshots, photographs and records of practical activities.

Teachers utilise the learning graphs, assessment materials and supporting resources provided within the Teach Computing Curriculum to support planning, teaching and assessment. These resources help pupils understand the learning journey within each unit and support the development of secure knowledge and skills over time.

Online Safety

Online safety is a fundamental aspect of the Computing curriculum and the school's wider safeguarding responsibilities. Newall Green Primary School recognises that developing pupils' ability to use technology safely, responsibly and respectfully is essential in preparing them for life in an increasingly connected world.

Online safety education is delivered through a combination of the Teach Computing Curriculum, ProjectEVOLVE, PSHE, assemblies, safeguarding activities and wider curriculum opportunities. This ensures that pupils receive a comprehensive and progressive online safety education that extends beyond the technical aspects of computing.

The school uses ProjectEVOLVE to support the delivery of the Education for a Connected World framework.

Learning is carefully sequenced to ensure progression across the eight strands of online safety:

- Self-Image and Identity
- Online Relationships
- Online Reputation

- Online Bullying
- Managing Online Information
- Health, Wellbeing and Lifestyle
- Privacy and Security
- Copyright and Ownership

Through these strands, pupils develop the knowledge, skills and behaviours required to navigate the online world safely, confidently and responsibly.

Online safety is also embedded within relevant computing units, enabling pupils to apply their learning within meaningful contexts. Links are made to topics such as passwords, privacy, searching online, digital communication, responsible content creation and the safe use of emerging technologies.

The curriculum reflects current and emerging online safety risks and opportunities. Pupils are encouraged to think critically about the information they encounter online, understand how technology may influence behaviour and decision-making, and develop an awareness of the opportunities and challenges presented by developments such as artificial intelligence, social media and online communication platforms.

Staff respond flexibly to emerging safeguarding concerns, national events and local issues to ensure that online safety education remains relevant to the experiences and needs of our pupils.

Further details regarding online safety education can be found within the school's Online Safety Policy and PSHE Curriculum.

Physical Computing

Physical computing forms an important part of the Computing curriculum at Newall Green Primary School. It enables pupils to apply their understanding of programming, data and computer systems through practical, hands-on experiences that bring computing concepts to life.

As pupils progress through the school, they are provided with opportunities to interact with a range of programmable devices and digital technologies. In the Early Years Foundation Stage and within the SEND provision, pupils explore simple cause-and-effect technologies and devices that respond to user input. Pupils then progress to programmable toys such as BeeBots in EYFS and Key Stage 1 before moving on to more advanced physical computing technologies including Crumble controllers, Micro:bits and data-logging equipment in Key Stage 2. These technologies allow pupils to explore how software and hardware work together to collect information, respond to inputs and control outputs.

Physical computing provides meaningful opportunities for pupils to apply computational thinking by designing, creating, testing and refining solutions to real-world problems. Through these experiences, pupils develop skills in sequencing, selection, repetition, debugging and problem solving whilst gaining a deeper understanding of how digital systems operate.

Links are made, where appropriate, to other curriculum areas including Science, Design and Technology and Mathematics. This enables pupils to apply their computing knowledge in a range of contexts and understand the relevance of technology beyond the computing curriculum.

The progression of physical computing skills is carefully planned to ensure that pupils revisit and build upon prior learning. Experiences begin with simple programmable and responsive technologies in the Early Years Foundation Stage before progressing to programmable toys in Key Stage 1 and more complex programming, sensing and data-handling activities in Key Stage 2.

The school continues to review and develop opportunities for physical computing to ensure pupils experience a broad range of contemporary technologies and develop an understanding of how digital systems are used in the modern world.

Physical computing supports the development of the school's five key skills for life by encouraging pupils to work collaboratively, persevere through challenges, communicate their ideas and develop confidence in solving problems through technology.

SEND Provision

Learning is adapted to ensure accessibility for all pupils, including those with SEND, so that every child can participate fully and make progress within Computing.

At Newall Green Primary School, we recognise that pupils have a wide range of strengths, needs and starting points. Computing lessons are therefore planned and delivered using adaptive teaching approaches to ensure all pupils can access the curriculum and experience success.

Teachers adapt learning through a range of strategies, including scaffolding, pre-teaching of vocabulary, visual supports, modelling, task breakdown, additional adult support, assistive technologies and alternative methods of recording where appropriate. Adaptations are carefully matched to individual pupils' needs whilst maintaining high expectations and promoting independence.

Assistive technologies are used where appropriate to remove barriers to learning and promote independence. These may include text-to-speech software, speech-to-text tools, reading support technologies, accessibility features built into devices and alternative methods of recording. Such technologies enable pupils to access learning, communicate their understanding and participate more fully in computing lessons. Examples currently used within school include reading pens, Microsoft Immersive Reader, dictation tools and accessibility features available within Microsoft 365 and iPad devices.

Pupils within the Resource Provision and SEND Unit access computing through personalised pathways that reflect their individual developmental stage, communication needs and EHCP outcomes. Where appropriate, learning may be adapted from different year group expectations to ensure pupils can build secure knowledge and skills from their individual starting points.

Technology can play a significant role in supporting communication, independence and engagement for pupils with SEND. Opportunities are provided for pupils to use a range of technologies, including simple cause-and-effect devices, programmable toys, communication technologies and age-appropriate digital tools, enabling them to develop confidence and independence whilst accessing the computing curriculum.

The curriculum is designed to ensure that all pupils experience success and make meaningful progress. Assessment focuses on individual progress and achievement, recognising and celebrating development from each pupil's starting point.

Through adaptive teaching and personalised support, all pupils are supported to develop the digital knowledge, skills and understanding needed to participate safely and confidently in an increasingly technological world.

Assessment

Assessment is an integral part of the teaching and learning process in Computing and is used to identify pupils' understanding, inform future teaching and support progression across the curriculum. Assessment in Computing is carried out in accordance with the school's Assessment Policy.

Teachers assess pupils' learning continuously throughout lessons using a range of formative assessment strategies, including questioning, discussion, observation of practical activities, retrieval tasks and the evaluation of completed work. These approaches enable teachers to identify misconceptions, provide timely feedback and adapt teaching where necessary.

The Teach Computing Curriculum provides a range of assessment materials which are used to support teacher assessment. Learning graphs are used within each unit to identify the key knowledge and skills being developed and to support pupils in understanding their learning journey. These are used alongside teacher assessment to monitor progress over time.

Where provided within the Teach Computing Curriculum, end-of-unit quizzes and assessment rubrics are completed by pupils and reviewed by teachers. These assessment tools support teachers in evaluating pupils' understanding of the key concepts, knowledge and skills taught within each unit and help identify areas requiring further consolidation or challenge.

Pupils are encouraged to reflect on their own learning and evaluate their progress against the learning objectives for each unit. Opportunities for self-assessment and discussion support pupils in developing confidence and ownership of their learning.

Evidence of learning is recorded within Computing books from Year 1 onwards and may include written work, planning, evaluations, retrieval activities, screenshots, photographs and records of practical activities. Digital outcomes may also be saved electronically where appropriate. Computing books provide a record of progression over time and support subject leaders in monitoring curriculum coverage, progression and standards across the school.

For pupils with SEND, assessment is adapted to reflect individual starting points, personalised learning pathways and identified outcomes. Progress is measured through the development of knowledge, skills, confidence and independence, ensuring that all pupils are able to demonstrate success and make meaningful progress within Computing.

Impact

At Newall Green Primary School, we aim for all pupils to develop the knowledge, skills and confidence required to become responsible, competent and creative users of technology. Through a carefully sequenced and progressive curriculum, pupils build a secure understanding of computer science, information technology and digital literacy whilst developing the computational thinking and problem-solving skills needed to thrive in an increasingly digital world.

By the time pupils leave Newall Green Primary School, they will be able to use technology safely, respectfully and responsibly, understand how digital systems work, create and evaluate digital content, and apply programming skills to solve problems. Pupils develop increasing independence, resilience and confidence when using technology and are encouraged to think critically about the opportunities and challenges presented by the digital world. Pupils develop an awareness of emerging technologies, including artificial intelligence, and understand the importance of using such technologies critically, safely and responsibly.

Through the integration of ProjectEVOLVE and the Education for a Connected World framework, pupils develop the knowledge, behaviours and understanding needed to manage online relationships, protect their personal information, evaluate online content and respond appropriately to online risks. They leave primary school equipped to navigate the online world safely and responsibly.

The curriculum ensures that all pupils, including those with SEND, are able to access meaningful computing experiences and make progress from their individual starting points. Through adaptive teaching, assistive technologies and personalised support where appropriate, pupils develop confidence in using technology to support communication, creativity, learning and independence.

Physical computing opportunities further enrich the curriculum, enabling pupils to apply their knowledge through practical experiences involving programmable devices, sensors and data-logging technologies. These experiences help pupils understand the relationship between hardware and software and develop resilience through testing, refining and improving solutions.

We continue to monitor the effectiveness of our curriculum through:

- Regular learning walks and lesson observations.
- Book looks and scrutiny of Computing books.
- Pupil voice activities.
- Monitoring of online safety knowledge and understanding.
- Review of assessment information, including Teach Computing quizzes and rubrics.
- Monitoring of curriculum coverage and progression.
- Governor monitoring visits and reporting.
- Staff professional development and curriculum reviews.
- Subject leader monitoring and action planning.

Through these processes, we ensure that the Computing curriculum remains ambitious, inclusive, relevant and responsive to the needs of our pupils and the rapidly changing digital world.

SMSC and British Values

The Computing curriculum makes a significant contribution to pupils' spiritual, moral, social and cultural development whilst promoting the fundamental British Values of democracy, the rule of law, individual liberty, mutual respect and tolerance.

Through Computing, pupils develop an understanding of how technology influences the world around them and are encouraged to think critically about its opportunities and challenges. Opportunities to create digital content, solve problems and explore new technologies support creativity, curiosity and self-expression.

Pupils develop moral understanding through learning how to use technology safely, responsibly and ethically. They are taught about acceptable and unacceptable online behaviour, the importance of privacy and security, copyright and ownership, and the potential impact their actions can have on others. Through online safety education, pupils learn to evaluate information critically and make informed decisions when using digital technologies.

The curriculum promotes social development by providing opportunities for collaboration, discussion and problem solving. Pupils learn how to communicate respectfully in both online and offline environments, develop positive online relationships and understand their responsibilities as digital citizens. These experiences support the development of teamwork, communication and mutual respect.

Computing contributes to pupils' cultural development by helping them understand how technology connects people, communities and cultures across the world. Pupils explore how technology is used in different contexts and develop an appreciation of the diverse ways in which digital technologies can be used for learning, communication and creativity.

The curriculum also promotes the fundamental British Values:

- **Democracy** – Pupils are encouraged to share ideas, express opinions and collaborate with others whilst respecting different viewpoints.
- **Rule of Law** – Pupils develop an understanding of the rules, laws and expectations that apply when using technology, including acceptable use, copyright, privacy and online safety.
- **Individual Liberty** – Pupils learn how to make safe and responsible choices online, understand their rights and responsibilities, and develop confidence in managing their digital lives.
- **Mutual Respect** – Pupils are taught to communicate respectfully, value the contributions of others and demonstrate positive behaviour both online and offline.
- **Tolerance of Different Faiths and Beliefs** – Through online safety, digital communication and global connectivity, pupils develop an understanding of diversity and learn to respect the views, beliefs and experiences of others.

Through these experiences, pupils develop the knowledge, skills and attitudes required to participate positively, safely and responsibly in modern digital society.

Rights Respecting Schools

As a Rights Respecting School, Newall Green Primary School recognises that Computing plays an important role in helping children understand their rights and responsibilities within an increasingly digital world. Through the Computing curriculum, pupils are taught how to communicate safely and respectfully, protect their personal information, access reliable information and use technology responsibly.

The curriculum supports a number of articles from the United Nations Convention on the Rights of the Child (UNCRC), including:

- **Article 13 – Freedom of Expression:** Pupils are provided with opportunities to express their ideas, opinions and creativity through a range of digital technologies and media.

- **Article 16 – Right to Privacy:** Pupils learn the importance of protecting personal information, respecting the privacy of others and understanding how to stay safe online.

- **Article 17 – Access to Information:** Pupils develop the skills needed to access, evaluate and use information from a variety of digital sources safely and responsibly.

- **Article 29 – Goals of Education:** The Computing curriculum supports the development of pupils' talents, abilities, confidence and independence, preparing them for life in an increasingly technological society.

Through online safety education, digital literacy and responsible use of technology, pupils develop an understanding of both their rights and their responsibilities as active and respectful digital citizens.

Monitoring and Review

The implementation and effectiveness of the Computing curriculum is monitored throughout the academic year to ensure high standards of teaching and learning, appropriate curriculum coverage and positive outcomes for pupils.

The Computing Subject Leader is responsible for leading, monitoring and evaluating the curriculum. This is carried out in collaboration with senior leaders and governors through a range of quality assurance activities, including:

- Learning walks and lesson visits.
- Scrutiny of Computing books and digital outcomes.
- Pupil voice activities.

- Review of assessment information, including Teach Computing quizzes and rubrics.
- Monitoring of online safety provision and ProjectEVOLVE coverage.
- Review of curriculum coverage, progression and resources.
- Staff discussions and professional development activities.

Monitoring activities include consideration of how effectively the curriculum is adapted to meet the needs of all learners, including pupils with SEND, those accessing learning within the Resource Provision and SEND Unit, and disadvantaged pupils.

The Subject Leader reports regularly to the Senior Leadership Team and governors regarding curriculum developments, standards, strengths and areas for improvement. The Computing curriculum, including online safety provision, is reported to governors at least annually.

This policy will be reviewed annually by the Computing Subject Leader and Senior Leadership Team, or sooner if required by changes to statutory guidance, curriculum requirements or school practice.

Appendix 1 – Teach Computing Curriculum Journey

Newall Green Primary School follows the National Centre for Computing Education's Teach Computing Curriculum. The curriculum follows a carefully sequenced spiral approach, enabling pupils to revisit and build upon key knowledge and skills throughout their primary education.

The curriculum journey below demonstrates how learning progresses across the primary phase and prepares pupils for further study in Key Stage 3 and beyond.

Appendix 2 – Computing and Online Safety Progression Overview (Years 1–6)

Year Group	Teach Computing Unit	Computing Strand	ProjectEVOLVE / Online Safety Links	Additional eSafety Lesson
Year 1	Technology Around Us	Computing Systems & Networks	Passwords and protecting information; ownership of digital work; finding help online; keeping safe when using technology; identifying real and make-believe information online	Managing Online Information
Year 1	Digital Painting	Creating Media	Embedded through wider ProjectEVOLVE curriculum	-
Year 1	Moving a Robot	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 1	Grouping Data	Data & Information	Embedded through wider ProjectEVOLVE curriculum	-
Year 1	Digital Writing	Creating Media	Embedded through wider ProjectEVOLVE curriculum	-
Year 1	Programming Animations	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 1	Discrete Online Safety Unit	ProjectEVOLVE	Self-Image and Identity; Online Relationships; Online Reputation; Online Bullying; Privacy and Security	Standalone ProjectEVOLVE Unit

Year Group	Teach Computing Unit	Computing Strand	ProjectEVOLVE / Online Safety Links	Additional eSafety Lesson
Year 2	IT Around Us	Computing Systems & Networks	Passwords; connected devices; using technology safely in different environments; online relationships; permission and consent online	Online Relationships
Year 2	Digital Photography	Creating Media	Understanding that images can be changed; recognising that people may appear differently online; copyright and ownership	Copyright and Ownership
Year 2	Robot Algorithms	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 2	Pictograms	Data & Information	Understanding when information should not be shared	-
Year 2	Making Music	Creating Media	Embedded through wider ProjectEVOLVE curriculum	-
Year 2	Programming Quizzes	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 2	Discrete Online Safety Unit	ProjectEVOLVE	Self-Image and Identity; Online Relationships; Online Reputation; Online Bullying; Managing Online Information; Privacy and Security	Standalone ProjectEVOLVE Unit

Year Group	Teach Computing Unit	Computing Strand	ProjectEVOLVE / Online Safety Links	Additional eSafety Lesson
Year 3	Connecting Computers	Computing Systems & Networks	Privacy and Security – passwords, connected devices, sharing information safely online	Online Reputation
Year 3	Stop-Frame Animation	Creating Media	Embedded through wider ProjectEVOLVE curriculum	-
Year 3	Sequencing Sounds	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 3	Branching Databases	Data & Information	Embedded through wider ProjectEVOLVE curriculum	-
Year 3	Desktop Publishing	Creating Media	Managing Online Information – understanding information sources and presenting information appropriately	-
Year 3	Events and Actions in Programs	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 3	Discrete Online Safety Unit	ProjectEVOLVE	Self-Image and Identity; Online Relationships; Online Reputation; Online Bullying; Managing Online Information; Privacy and Security	Standalone ProjectEVOLVE Unit

Year Group	Teach Computing Unit	Computing Strand	ProjectEVOLVE / Online Safety Links	Additional eSafety Lesson
Year 4	The Internet	Computing Systems & Networks	Managing Online Information – searching, evaluating and using information safely	Managing Online Information
Year 4	Audio Production	Creating Media	Copyright and Ownership – respecting the work of others and using content appropriately	Copyright and Ownership
Year 4	Repetition in Shapes	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 4	Data Logging	Data & Information	Embedded through wider ProjectEVOLVE curriculum	-
Year 4	Photo Editing	Creating Media	Self-Image and Identity – understanding edited images and their impact	Self-Image and Identity
Year 4	Repetition in Games	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 4	Discrete Online Safety Unit	ProjectEVOLVE	Self-Image and Identity; Online Relationships; Online Reputation; Online Bullying; Managing Online Information; Privacy and Security; Copyright and Ownership	Standalone ProjectEVOLVE Unit

Year Group	Teach Computing Unit	Computing Strand	ProjectEVOLVE / Online Safety Links	Additional eSafety Lesson
Year 5	Systems and Searching	Computing Systems & Networks	Privacy and Security; Managing Online Information – searching effectively, evaluating sources and protecting personal information	Managing Online Information
Year 5	Video Production	Creating Media	Online Relationships – creating and sharing content responsibly	Online Relationships
Year 5	Selection in Physical Computing	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 5	Flat-File Databases	Data & Information	Embedded through wider ProjectEVOLVE curriculum	-
Year 5	Introduction to Vector Graphics	Creating Media	Embedded through wider ProjectEVOLVE curriculum	-
Year 5	Selection in Quizzes	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 5	Discrete Online Safety Unit	ProjectEVOLVE	Self-Image and Identity; Online Relationships; Online Reputation; Online Bullying; Managing Online Information; Privacy and Security; Copyright and Ownership	Standalone ProjectEVOLVE Unit

Year Group	Teach Computing Unit	Computing Strand	ProjectEVOLVE / Online Safety Links	Additional eSafety Lesson
Year 6	Communication and Collaboration	Computing Systems & Networks	Managing Online Information; Self-Image and Identity – communication, collaboration and managing an online presence	Self-Image and Identity / Managing Online Information
Year 6	Web Page Creation	Creating Media	Copyright and Ownership – using and creating digital content responsibly	Copyright and Ownership
Year 6	Variables in Games	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 6	Spreadsheets	Data & Information	Embedded through wider ProjectEVOLVE curriculum	-
Year 6	3D Modelling	Creating Media	Embedded through wider ProjectEVOLVE curriculum	-
Year 6	Sensing Movement	Programming	Embedded through wider ProjectEVOLVE curriculum	-
Year 6	Discrete Online Safety Unit	ProjectEVOLVE	Self-Image and Identity; Online Relationships; Online Reputation; Online Bullying; Managing Online Information; Privacy and Security; Copyright and Ownership	Standalone ProjectEVOLVE Unit

Detailed ProjectEVOLVE lesson objectives and success criteria are contained within the school's ProjectEVOLVE planning documentation and are reviewed annually to reflect emerging online safety risks and technological developments.

Appendix 3 - EYFS to Year 1 Computing Progression Map

EYFS Area	Key EYFS Skills	Teach Computing Year 1 Unit(s)	Computing Strand
Robots	Following and planning routes; predicting outcomes; programming BeeBots and other programmable devices; understanding that instructions control actions	Programming A – Moving a Robot; Programming B – Programming Animations	Programming
Physical Computing	Exploring cause-and-effect technologies; using programmable toys and responsive devices; understanding that actions create responses	Programming A – Moving a Robot	Programming
Mouse and Trackpad Skills	Controlling a mouse and touchpad; clicking, dragging, scrolling and selecting	Computing Systems and Networks – Technology Around Us; Creating Media – Digital Painting; Creating Media – Digital Writing	Computing Systems and Networks / Creating Media
Drawing Skills	Using digital drawing tools; selecting colours; changing brush sizes; creating and editing pictures	Creating Media – Digital Painting	Creating Media
Keyboard Skills	Finding letters and numbers; using spacebar, enter, backspace, shift and caps lock; beginning to type independently	Creating Media – Digital Writing	Creating Media
Photography	Taking photographs; using webcams; selecting and inserting images; understanding that digital devices can capture images	Computing Systems and Networks – Technology Around Us; Creating Media – Digital Writing	Computing Systems and Networks / Creating Media
Sounds and Audio	Creating sounds; recording voices; listening to and using sound effects appropriately	Programming B – Programming Animations	Programming
Quizzes and Sorting	Answering simple quizzes; sorting and grouping objects; recognising categories and attributes	Data and Information – Grouping Data	Data and Information
Hardware	Understanding what technology is; identifying parts of a computer; using devices safely and appropriately	Computing Systems and Networks – Technology Around Us	Computing Systems and Networks
Technology Around Us	Identifying technology in school, home and the wider world; understanding common uses of technology	Computing Systems and Networks – Technology Around Us	Computing Systems and Networks
Safety and Privacy	Understanding private information; recognising trusted adults; showing kindness online; developing safe technology habits	Computing Systems and Networks – Technology Around Us; ProjectEVOLVE Online Safety Curriculum	Computing Systems and Networks / Online Safety
Using Technology with an Individual Login	Logging in independently; using usernames and passwords; saving and	Computing Systems and Networks – Technology Around Us	Computing Systems and Networks

EYFS Area	Key EYFS Skills	Teach Computing Year 1 Unit(s)	Computing Strand
	retrieving work; accessing personal work areas		
Creating Digital Content	Creating pictures, stories, recordings and simple multimedia content using Mini Mash and Purple Mash	Creating Media – Digital Painting; Creating Media – Digital Writing; Programming B – Programming Animations	Creating Media / Programming
Online Safety Foundations	Beginning to understand personal information, digital ownership, trusted adults, screen time and responsible behaviour online	ProjectEVOLVE Online Safety Curriculum; Computing Systems and Networks – Technology Around Us	Online Safety

Appendix 4 – Computing Progression Overview

Curriculum Progression

The Teach Computing Curriculum follows a spiral curriculum model. Key concepts are revisited throughout each year group, allowing pupils to build upon previous knowledge and develop increasingly sophisticated understanding and skills. This approach supports long-term retention of knowledge and ensures progression across the four key themes of Computing: Computing Systems and Networks, Programming, Data and Information, and Creating Media.

Alongside these themes, Online Safety, Digital Literacy and Physical Computing are woven throughout the curriculum to develop responsible, confident and capable users of technology.

Computing Systems and Networks

This strand develops pupils' understanding of technology, computer systems, networks and the internet. Learning progresses from recognising technology in the immediate environment to understanding how information is communicated and shared globally.

Year Group	Unit	Progression Focus
EYFS	Mini Mash & Technology Exploration	Recognising technology in everyday life and using technology purposefully.
Year 1	Technology Around Us	Identifying technology and understanding its purpose.
Year 2	IT Around Us	Recognising information technology and how it improves our lives.
Year 3	Connecting Computers	Understanding inputs, processes, outputs and simple networks.
Year 4	The Internet	Understanding that the internet is a network of networks and evaluating online content.
Year 5	Systems and Searching	Understanding search engines and how information is found online.
Year 6	Communication and Collaboration	Understanding how data is transferred and how technology enables collaboration.

As pupils progress, they move from recognising technology around them to understanding how information is transmitted, shared and communicated across networks and the internet.

Programming

Programming is taught twice each year and follows a carefully sequenced progression from simple algorithms to physical computing and complex programming concepts.

Year Group	Programming A	Programming B
EYFS	BeeBots, programmable toys, cause-and-effect devices	Exploring sequences and instructions through play
Year 1	Moving a Robot	Programming Animations
Year 2	Robot Algorithms	Programming Quizzes
Year 3	Sequencing Sounds	Events and Actions in Programs
Year 4	Repetition in Shapes	Repetition in Games

Year Group	Programming A	Programming B
Year 5	Selection in Physical Computing	Selection in Quizzes
Year 6	Variables in Games	Sensing Movement

Programming develops through four key concepts:

Sequence → Repetition → Selection → Variables

Pupils begin by creating simple instructions and algorithms before progressing to repetition, decision making, physical computing and increasingly complex programs.

Data and Information

This strand develops pupils' understanding of how data can be collected, organised, analysed and used to answer questions.

Year Group	Unit	Progression Focus
Year 1	Grouping Data	Sorting and grouping objects by properties.
Year 2	Pictograms	Collecting and presenting data.
Year 3	Branching Databases	Classifying information using yes/no questions.
Year 4	Data Logging	Collecting data over time using digital devices.
Year 5	Flat File Databases	Searching, sorting and analysing larger datasets.
Year 6	Spreadsheets	Organising, calculating and interpreting data.

Pupils progress from simple sorting and grouping activities to using databases and spreadsheets to analyse and interpret increasingly complex information.

Creating Media

The Creating Media strand develops pupils' ability to create, edit and evaluate a wide range of digital content.

Year Group	Text	Graphics	Photo & Video	Audio
Year 1	Digital Writing	Digital Painting		
Year 2			Digital Photography	Digital Music
Year 3	Desktop Publishing		Stop-Frame Animation	
Year 4		Photo Editing		Audio Production
Year 5		Introduction to Vector Graphics	Video Production	
Year 6	Web Page Creation	3D Modelling		

Through this progression, pupils develop increasingly sophisticated skills in creating, editing and evaluating digital content for different audiences and purposes.

Physical Computing Progression

Physical computing provides practical and engaging opportunities for pupils to apply programming skills in real-world contexts.

Phase	Physical Computing Experiences
EYFS	Cause-and-effect toys, programmable toys, responsive devices
KS1	BeeBots and floor robots
Lower KS2	Data Loggers
Upper KS2	Crumbles, Micro:bits and sensor-based projects

Physical computing helps pupils understand how software interacts with hardware while developing creativity, resilience and problem-solving skills. The Teach Computing curriculum introduces physical computing formally through Data Logging in Year 4, Selection in Physical Computing in Year 5 and Sensing Movement in Year 6.

Online Safety and Digital Literacy

Online Safety is embedded throughout the Computing curriculum and further developed through ProjectEVOLVE. Pupils revisit key concepts each year through the strands of:

- Self-Image and Identity
- Online Relationships
- Online Reputation
- Online Bullying
- Managing Online Information
- Health, Wellbeing and Lifestyle
- Privacy and Security
- Copyright and Ownership

These themes are revisited throughout pupils' primary education, enabling them to develop the knowledge, skills and behaviours needed to become safe, responsible and respectful digital citizens. Online safety and digital literacy are woven throughout all four curriculum themes and are not taught in isolation.

Appendix 5 – Online Safety Curriculum Overview

Newall Green Primary School uses ProjectEVOLVE to deliver a progressive online safety curriculum based upon the UK Council for Internet Safety's *Education for a Connected World Framework*. This curriculum complements the Teach Computing Curriculum and wider safeguarding provision, ensuring pupils develop the knowledge, skills and behaviours required to navigate the online world safely, responsibly and confidently.

Online safety education is delivered through dedicated ProjectEVOLVE lessons, Computing lessons, PSHE, assemblies, safeguarding activities and responsive teaching linked to emerging technologies and online risks.

The curriculum is structured around the following eight strands:

Self-Image and Identity

Pupils develop an understanding of how their identity can be represented both online and offline. They learn about self-esteem, digital footprints, online influences and managing their online presence.

Online Relationships

Pupils learn how to develop safe, respectful and positive relationships online. They explore appropriate communication, consent, trust, peer pressure and strategies for seeking help when needed.

Online Reputation

Pupils develop an understanding of how information shared online can create a lasting digital footprint. They learn how online actions can affect reputation and future opportunities.

Online Bullying

Pupils learn to recognise different forms of online bullying and develop strategies to respond appropriately, seek support and help create positive online environments.

Managing Online Information

Pupils develop critical thinking skills to help them evaluate the reliability, accuracy and purpose of online information. They learn how search engines work and how to identify misinformation and disinformation.

Health, Wellbeing and Lifestyle

Pupils explore the impact of technology on physical health, emotional wellbeing and lifestyle choices. They learn strategies for maintaining healthy and balanced use of technology.

Privacy and Security

Pupils learn how to keep personal information safe, create secure passwords, protect accounts and understand how data may be collected and used online.

Copyright and Ownership

Pupils develop an understanding of ownership, intellectual property and copyright. They learn how to use and share digital content legally, responsibly and respectfully.

Progression

ProjectEVOLVE learning is carefully sequenced across the school to ensure pupils revisit and build upon previous learning. As pupils progress through the school, they develop increasingly sophisticated knowledge and understanding of online safety issues, enabling them to become safe, responsible and informed digital citizens.

The online safety curriculum remains responsive to emerging technologies, safeguarding concerns and changes within the digital landscape. Additional learning opportunities may be incorporated throughout the year in response to current trends, local issues, national campaigns and technological developments such as artificial intelligence.

Detailed year-group planning and lesson resources are available through ProjectEVOLVE and are reviewed annually by the Computing Lead and Designated Safeguarding Lead to ensure continued relevance and effectiveness.

Unit Overviews

The table below shows the overview of the order of the units for each year group. Click the unit titles for year 1 to 6 for more details on the Teach Computing curriculum.

Predominant Area of Computing*		
Computer Science	Information Technology	Digital Literacy

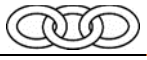
*Most units will include aspects of all strands.

	Autumn				Spring						Summer
Nursery	Rather than a scheme with set lessons, the early years resources are designed to integrate into the day-to-day routine and set-up of an early years setting with opportunities for using Mini Mash/Purple Mash as part of the Early Years curriculum to support children in working towards early learning goals. Below are skills/units that will need to be covered so they are able to access Mini Mash/Purple Mash safely. These can be taught across the year, as pupils are ready for them, it is recommended that these are taught in order.										
	Hardware										
	Technology Around Us										
	Mouse and Trackpad Skills										
	Keyboard Skills										
	Safety and Privacy										
Reception	Hardware	Mouse and Trackpad Skills	Drawing skills	Robots	Keyboard Skills	Technology Around Us	Safety and Privacy	Photography	Sounds	Quizzes	Using Computers with a log-in

	Autumn		Spring		Summer	
Year 1	1. Computing systems and networks – Technology around us	2. Creating media – Digital painting	3. Programming A – Moving a robot	4. Data and information – Grouping data	5. Creating media – Digital writing	6. Programming B - Programming animations
Year 2	1. Computing systems and networks – IT around us	2. Creating media – Digital photography	3. Programming A – Robot algorithms	4. Data and information – Pictograms	5. Creating media - Digital music	6. Programming B - programming quizzes
Year 3	1. Computing systems and networks – Connecting computers	2. Creating media - Stop-frame animation	3. Programming A - Sequencing sounds	4. Data and information – Branching databases	5. Creating media – Desktop publishing	6. Programming B - Events and actions in programs
Year 4	1. Computing systems and networks – The Internet	2. Creating media - Audio production	3. Programming A – Repetition in shapes	4. Data and information – Data logging	5. Creating media – Photo editing	6. Programming B – Repetition in games
Year 5	1. Computing systems and networks - systems and searching	2. Creating media - Video production	3. Programming A – Selection in physical computing	4. Data and information – Flat-file databases	5. Creating media - Introduction to vector graphics	6. Programming B – Selection in quizzes
Year 6	1. Computing systems and networks - Communication and collaboration	2. Creating media – Web page creation	3. Programming A – Variables in games	4. Data and information - Introduction to Spreadsheets	5. Creating media – 3D Modelling	6. Programming B - Sensing movement 7. Using the microbit for primary to secondary transition

Reception:

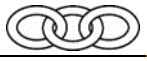
Autumn 2

Linked curriculum learning objective:  **Know what computers are and what they do**

Class discussion: What are computers? What can you do with them? What different types are there?
Stress the use of computers as a tool and not just to play games on.
Use an art program to design something and then make it elsewhere e.g. out of junk.

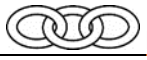
Place a computer or laptop on the carpet with the children and begin to label the computer with post-it notes. Ask the children what they think the different parts do. Sometimes it helps children to teach them skills directly e.g. ask what the buttons on the computer do and then press them to show them.
Prior to this task, ask the children to bring in any reclaimed materials such as yoghurt pots, cereal and other food boxes, plastic cartons, plastic bottles and milk top lids to create your junk area. Introduce the children to the 'Junk Modelling' area. This area is where the children will use various pieces of 'junk' to create something exciting and original. Tell the children they are going to build their own computer. See example pictures using cardboard, pots, pens etc. Record the children giving an oral account of their creations and how they use computers/ICT to do things (this could be video or a photo story with pictures and audio). When recording, encourage critical thinking and creativity by asking e.g. I wonder how I….What happens if….Do you have any ideas how I can….I saw __ and it gave me an idea….Do you remember how you found out how this worked, I liked the way you…
What are inputs? These are simply the means of talking to a computer, the keyboard and mouse are the first that need to be mastered. On the IWB model using a keyboard, identify and match numbers using the SMART board software keyboard with the class.
Explain that keyboards have all the letters of the alphabet – recognise S A T P I N
However, they are capital letters. Show the children how to play typing games. Set the children the task of playing a variety of games that help them to learn keyboard skills and mouse control and techniques.
Open using 'paint packages' presentation. Using a paint package on a computer/laptop or iPad, ask the children to draw pictures of how computers are used and of themselves. You could also create a classroom display that explains the different parts of a computer and some of the terminology.

Spring 1

Linked curriculum learning objective:  **Know how to use a paint program**

Explain to the class what an artist is and that artists take their inspiration for their art from what is around them and the things that they are passionate about. Ask the class what they know about artists and do they know any works of art? You could link this to places that the children have visited.
Demonstrate a PC art application with the class. Tell them to draw their favourite food and the place where they would eat it. When they have done this, make them play a game together by guessing what or whom they have drawn. This helps their drawing and colouring skills develop.
Demonstrate an iPad art app with the class. Tell them to draw their favourite toy and themselves playing with it. When they have done this, make them play a game together by guessing what or whom they have drawn. This helps their drawing and colouring skills develop, as above.
Tell them to draw their favourite friend, explain this is called a portrait.
Tell them to draw their favourite colour. They must use 4 different shapes and 4 different shades of their favourite colour. Play the same guessing game as above.

Spring 2 & Summer 1

Linked curriculum learning objective:  **Know that computers need instructions to make them work**

Explain to the class that they are going to learn about directions and will explore the words we use to describe them.

Play a game with the children to establish their understanding of directions (move forwards, move backwards, turn left and turn right).

Show flash cards or point in different directions and ask children to shout out the correct terminology. Explain how forwards and backwards are different to up and down. Discuss with children when we would use instructions, ask the children, 'As well as the instructions we ask children to follow, what else do we give instructions for?'

What way is ↑ (forward)

What way is ↓ (backward)

What way is ← (turn left)

What way is → (turn right)

Set children a task to match the words to the images. In pairs using the flash cards, the child will match the direction their partner is standing in with the arrow and images on the cards.

Recap on prior knowledge of directional language. Play a quick game e.g. Simon Says to reinforce the use of directional language.

Explain that the process of giving directions is similar to providing instructions and that instructions need to be in a certain order (sequencing). In pairs, ask the children to direct each other using only the terms forwards, backwards, turn left and turn right. Prompts can be placed on walls (with the word and symbol). It must be emphasised when giving instructions that they have to be in the correct order and very specific.

Introduce children to the Bee-Bots (floor turtle). Explain how the Bee-Bot will not move unless we give it certain instructions or commands. Children will learn to complete a programme of single instructions. Children will also master clearing previous programs before starting a new program. New terminology – 'clear and go'.

Extension - Children could make their own pictures to be placed together to create a map. Then direct each other to different areas on their own maps.