NAWTON AND ROSEDALE ABBEY FEDERATION

Curriculum Statement for Computing

Rationale:

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.

The National Curriculum for Computing has been developed to equip young people in England with the foundational skills, knowledge and understanding of computing they will need for the rest of their lives. Through this program of study for computing, they will learn how computers and computer systems work, they will design and build programs, develop their ideas using technology and create a range of content.

Curriculum Intent:

The intent of our computing curriculum is to deliver a curriculum which is accessible to all and that will maximise the development of every child's ability and academic achievement in this subject. The subject leader has identified key intentions for our computing curriculum. These are:

Our computing curriculum prepares all children at Nawton and Rosedale Abbey Community Primary School for a digital world.

Intention 1: To ensure that children access an engaging and effective curriculum that develops pupil's knowledge and understanding of computer science, information technology and digital literacy within the National Curriculum.

Intention 2: To prepare pupils to live safely in an increasingly digital world.

Curriculum Implementation:

Pupils in the Nawton and Rosedale Abbey Federation have discrete computing lessons taught every week/ in blocks (that are equal to a weekly lesson) in every year group throughout the academic year. The children are taught using mixed aged planning. Online/ internet safety is taught weekly for fifteen minutes in year group sessions.

Curriculum Coverage:

ACADEMIC YEAR 2023/2024	ACADEMIC YEAR 2024/2025	ACADEMIC YEAR 2025/2026	ACADEMIC YEAR 2026/2027	ACADEMIC YEAR 2027/2028	ACADEMIC YEAR 2028/2029	ACADEMIC YEAR 2029/20230
YEAR A	YEAR B	YEAR A	YEAR B	YEAR A	YEAR B	YEAR A

EYFS YEAR A AND B:

These children are taught in year groups, so the content for each phase of EYFS has the same outcomes from year to year.

	AUTUMN	SPRING	SUMMER
(Nursery)	Will seek to acquire basic skills in turning on and operating some ICT equipment. SMART RULES -I know how to be safe when using technology I know the SMART rules To use a digital device if an adult is around. To tell an adult if they see something on a digital device that upsets them. To know not to give out any information about themselves. To know that not everything they see on the internet is true.	Shows an interest in technological toys and real objects such as camera, phones etc SMART RULES -I know how to be safe when using technology I know the SMART rules To use a digital device if an adult is around. To tell an adult if they see something on a digital device that upsets them. To know not to give out any information about themselves. To know that not everything they see on the internet is true.	Can operate simple equipment (beebots, CD player) SMART RULES -I know how to be safe when using technology I know the SMART rules To use a digital device if an adult is around. To tell an adult if they see something on a digital device that upsets them. To know not to give out any information about themselves. To know that not everything they see on the internet is true.
(Reception)	I show an interest in technological toys. I can use the mouse to track the cursor, point and click to make marks I can operate simple equipment. I can use a mouse to click and drag objects. I can independently complete tasks on Purple Mash. I can put my completed work into my 'tray'. SMART RULES - I know how to be safe when using technology I know the SMART rules To use a digital device if an adult is around. To tell an adult if they see something on a digital device that upsets them. To know not to give out any information about themselves. To know that not everything they see on the internet is true.	I can complete a simple program on a computer. I can type their name (2 publish) I can recognise that technology is used in places such as homes and schools. I can type labels/captions. SMART RULES - I know how to be safe when using technology I know the SMART rules To use a digital device if an adult is around. To tell an adult if they see something on a digital device that upsets them. To know not to give out any information about themselves. To know that not everything they see on the internet is true.	I can log into my own Purple Mash area. I can select and use technology for particular purpose. I can select an appropriate programme. I can select and use technology for particular purpose I can save my work. SMART RULES - I know how to be safe when using technology I know the SMART rules To use a digital device if an adult is around. To tell an adult if they see something on a digital device that upsets them. To know not to give out any information about themselves. To know that not everything they see on the internet is true.

Year 1 and 2 – YEAR A

Introduction To PM (1) 3 lessons	Creating & Following Instructions (1)	Route Explorers (2) 4 lessons	Data Explorers (1) 6 lessons	Questioning (2) 4 lessons	Making Beats (1) 4 lessons	Animated Stories (1) 6 lessons	Presenting Ideas (2) 4 lessons

	3 lessons						
Online Safety – Delivered throughout the year using 2BeSafe – Being Safe in a Digital World							

Year 3 and 4 – YEAR A

Logo (4) 4 lessons	Unpacking Hardware & Software (4) 4 lessons	Sound Stories (4) 4 lessons	Coding 3/4 – (See Coding Breakdown Table Below) 6 lessons	Composing Beats (4) 4 lessons	Touch Typing (3) 4 lessons	Presentations - Microsoft, Google & Apple (3) 5 lessons	Introduction To AI (4) 4 lessons
Online Safety – Delivered throughout the year using 2BeSafe – Being Safe in a Digital World							

Tile	Using Repeat	Repeat Until and 'if/else' statements	Number Variables	Design and make interactive scene	Design and make interactive scene	Making a playable game
Year and lesson number	Year 3 Lesson 1	Year 4 Lesson 4	Year 4 Lesson 5	Year 3 Lesson 5	Year 3 Lesson 6	Year 4 Lesson 6

Year 5 and 6 – YEAR A

Networks (6) 4 lessons	Quizzing (5) 5 lessons	Blogging (6) 4 lessons	Coding 5/6 – (See Coding Breakdown Table Below) 6 lessons	Introduction to Python (6) 4 lessons	Spreadsheets - Microsoft, Apple & Google (6) 6 lessons	Data Detectives (6) 4 lessons
Online Safety – Delivered throughout the year using 2BeSafe – Being Safe in a Digital World						

Title	Designing and writing a more complex program	Designing and writing a more complex program	Decomposition and abstraction	Using Functions	Flowcharts and control simulations	Test Adventure
Year and lesson number	Year 6 Lesson 1	Year 6 Lesson 2	Year 5 Lesson 3	Year 6 Leeson 3	Year 6 Lesson 4	Year 6 Lesson 6

Year 1 and 2 – YEAR B

Introduction To PM (1) 3 lessons	Creative Computing (1) 4 lessons	Creating Pictures (2) 5 lessons	The Internet (2) 4 lessons	Coding (1) 6 lessons	Coding (2) 6 lessons	Technology Around Us (1) 4 lessons
Online Safety – Delivered throughout the year using 2BeSafe – Being Safe in a Digital World						

Year 3 and 4 – YEAR B

Email (3) 6 lessons	Branching Databases (3) 4 lessons	Route Planners (3) 5 lessons	Effective Searching (4) 4 lessons	Coding 3/4 – (See Coding Breakdown Table Below) 6 lessons	Spreadsheets (3) 6 lessons	Animation (4) 6 lessons

Online Safety – Delivered throughout the year using 2BeSafe – Being Safe in a Digital World

Title	Using flowcharts	Using Timers	'if' statements	Co-ordinates	Code, test and de-bug	Design, code, test and de-bug
Year and lesson number	Year 3 Lesson 1	Year 3 Lesson 2	Year 4 Lesson 2	Year 4 Lesson 3	Year 3 Lesson 4	Year 4 Lesson 1

Year 5 and 6 – YEAR B

Concept Maps (5) 4 lessons	Game Creator (5) 5 lessons	Databases (5) 4 lessons	Graphing (6) 4 lessons	Spreadsheets (5) 6 lessons	Coding 5/6 – (See Coding Breakdown Table) 6 lessons	Word Processing - Microsoft, Apple & Google (5) 6 lessons
Online Safety – Delivered throughout the year using 2BeSafe – Being Safe in a Digital World						

Title	Coding efficiently	Simulating and physical system	Friction and functions	Introducing strings	Text variable and concatenation	User input
Year and lesson number	Year 5 Lesson 1	Year 5 Lesson 2	Year 5 Lesson 5	Year 5 Lesson 5	Year 5 Lesson 6	Year 6 Lesson 5

Implementation:

Pupils at Nawton and Rosedale Abbey Community Primary School Federation have:

Access to resources which aid in the acquisition of skills and knowledge. Children have access to the hardware (computers, tablets, programmable equipment) and software that they need to develop knowledge and skills of digital systems and their applications.

Access to quality first teaching within the strands of Information Technology, Computer Science and Digital Literacy. Computing is taught every week/ in blocks (that are equal to a weekly lesson) in every year group throughout the academic year. The children are taught using mixed aged planning. Online/ internet safety is taught weekly for fifteen minutes in year group sessions. Teachers implement the curriculum through the 'Purple Mash' computing scheme. Teachers, through effective assessment and adapting the provision, meet the individual needs within their class.

A learning environment that enriches, promotes and celebrates learning within computing curriculum. Computing within the curriculum is evident in classrooms and around school through working 'blog' walls that recap learning, as well as knowledge organisers that are being used for the unit that is being covered.

Opportunities to apply their learning across the curriculum.
Opportunities for the safe use of digital systems are considered in wider curriculum planning.

Cross Curricular Links:
Computing provides numerous links with other curriculum subjects.
Examples include:
English- Documenting learning (writing/ typing)
Science – How a computer works.

Maths- Links with coding.
History – How technology has changed.
PSHE – Online safety
Music- Music modules
Art – Art and design modules
DT- Control

Links Across the Curriculum- Specific to Purple Mash Units

Within the scheme, there are many opportunities to incorporate the computational skills into other subjects. Resources could be adapted or created to match your topics. Below are some suggestions.

Units that link to the Maths curriculum:

- Year 1 - Data Explorers
- Year 2 - Questioning
- Year 3 - Branching Databases
- Year 5 - Databases
- Year 6 - Graphing
- Year 2, 3 and 5 - Spreadsheets
- Year 6 - Spreadsheets

Units that could be part of English lessons:

- Year 2 - Presenting Ideas
- Year 4 - Sound Stories
- Year 5 - Word Processing

Units that could easily be topic linked; resources will need to be adapted to have a topic theme:

- Any of the data handling units suggested in the Maths section.
- Year 1 - Animated Stories
- Year 2 - Creating Pictures
- Year 2 - Presenting Ideas
- Year 3 - Presentations
- Year 4 - Animation
- Year 4 - Sound Stories
- Year 5 - Quizzing
- Year 5 - Game Creator
- Year 5 - Word Processing
- Year 5 - Concept Maps
- Year 6 - Blogging

Music topics could be incorporated into music lessons with a modelling of musical skills on both instruments and using the computer:

- Year 1 - Making Beats
- Year 2 - Making Music
- Year 4 - Composing Beats

Typing could be covered during a regular 10-minute morning session over a term rather than during dedicated computing lessons (Year 3 Touch Typing). This is facilitated by using the Typing Across the Year resources (found in the Computing area).

Opportunities to explore the concept of online safety

Digital literacy and online safety lessons were introduced in September 2025. These lessons are taught in year groups. Each lesson will last between 15 minutes and 30 minutes. The units that span all year groups from 1to 6 include; self- image and identity, online relationships, online reputation, online bullying, managing online information, health, wellbeing and lifestyle, privacy and security and copywrite and ownership. Each of these areas is covered every year, progressing from what makes someone unhappy online in Year 1 (self- image and identity) to describing issues that can make people upset or frightened online and examples of what to do if this happens in Year 6 (self-image and identity). In addition to these weekly sessions the school celebrates Safer Internet Day in the Spring Term of the academic year.

Online safety is covered in PSHE lessons in the Autumn Term when covering the 'Me and My Relationships' unit, as well as in the Spring Term when the children cover 'Safety'. Every half term the children recap what 'Safe Adults' are and who their 'Safe Adults' are at school and outside of school. This then feeds into when these 'Safe Adults' need to be called upon, including situations online.

Clear parental Communication

Parents are given information about how to keep their children safe online at different points of the year. Parents are informed when issues relating to online safety arise and further information/support is provided if required. Starting in autumn 2025 the parents are being sent updates about online safety on a weekly basis via Classdojo and responsive to any emerging areas of concern shared by parents, staff or children.

Progression and Assessment:

EYFS- Reception and Nursery

Although computing is not included in the EYFS Framework as it previously was, at Nawton and Rosedale Federation we believe that the children need to leave their Reception year with secure foundational knowledge and so they are able to access the computing curriculum in KS1. We also believe that they need to develop their understanding and thinking about the safe use of the internet before accessing online material and know who to turn to for help when needed. Therefore, in EYFS (nursery and reception), the children access weekly computing sessions, as well as an internet safety session.

Year 1- Year 6

Along with the Purple Mash team, the Computing lead has worked to create a progressive curriculum for our mixed aged classes at Nawton and Rosedale Federation. All units apart from the coding units have different contexts that build upon skills the children will have gained in other units that have been previously taught, either that year or previous to this. The Purple Mash Scheme follows a spiral curriculum whereby skills and any previous knowledge that is linked to the current unit is recapped and then built upon. The coding units are split each year so that the two units are taught sequentially for example, a Year 3 unit proceeds a Year 4 unit of coding. This provides progression for the children in this area.

Each child has an online folder on 'Purple Mash' where they are able to save the work that they have completed. Assessments of the children's progress through a lesson/outcomes achieved will be noted on plans or as a comment on the child's work, and contribute to the assessment at the end of each unit (purple mash assessment grid). Each term there will be a judgement made on the child's attainment and this will be uploaded onto Insight. The impact of the curriculum will be reviewed at the end of each term through observations, governor monitoring and formative and summative assessments of pupils'

learning through individual trackers. The curriculum lead will then identify areas of improvement and actions to achieve outcomes.

Computing Progression
N.C. Statements KS1 Year 1

	Computer Science			Information Technology	Digital Literacy	
Statement	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.
Outcome	*Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that a computer program turns an algorithm into code that the computer can understand*	*Children can work out what is wrong with a simple algorithm when the steps are out of order, e.g. The Wrong Sandwich in Purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code.*	*When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. Children can, for example, interpret where the turtle in 2Go challenges will end up at the end of the program.*	*Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash **2Quiz** example (sorting shapes), **2Code** design mode (manipulating backgrounds) or using pictogram software such as **2Count**.*	*Children understand what is meant by technology and can identify a variety of examples both in and out of school. They can make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair.*	*Children understand the importance of keeping information, such as their usernames and passwords, private and actively demonstrate this in lessons. Children take ownership of their work and save this in their own private space such as their My Work folder on Purple Mash.*

Computing Progression
N.C. Statements KS1 Year 2

	Computer Science			Information Technology	Digital Literacy	
Statement	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.
Outcome	*Children can explain that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.*	*Children can create a simple program that achieves a specific purpose. They can also identify and correct some errors, e.g. Debug Challenges: Chimp. Children's program designs display a growing awareness of the need for logical, programmable steps.*	*Children can identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.*	*Children demonstrate an ability to organise data using, for example, a database such as **2Investigate** and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within **2Sequence**. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.*	*Children can effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. **2Publish example template**. Children make links between technology they see around them, coding and multimedia work they do in school e.g. **animations**, **interactive code** and **programs.***	*Children know the implications of inappropriate online searches. Children begin to understand how things are shared electronically such as posting work to the Purple Mash display board. They develop an understanding of using email safely by using **2Respond** activities on Purple Mash and know ways of reporting inappropriate behaviours and content to a trusted adult.*

Computing Progression
N.C. Statements KS2 Year 3

	Computer Science				Information Technology		Digital Literacy
Statement	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 concern about content and contact.
Outcome	*Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Their design shows that they are thinking of the desired task and how this translates into code. Children can identify an error within their program that prevents it following the desired algorithm and then fix it.*	*Children demonstrate the ability to design and code a program that follows a simple sequence. They experiment with timers to achieve repetition effects in their programs. Children are beginning to understand the difference in the effect of using a timer command rather than a repeat command when creating repetition effects.*	*Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, repetition and use of timers. They make good attempts to 'step through' more complex code in order to identify errors in algorithms and can correct this. e.g. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.*	*Children can list a range of ways that the Internet can be used to provide different methods of communication. They can use some of these methods of communication, e.g. being able to open, respond to and attach files to emails using 2Email. They can describe appropriate email conventions when communicating in this way.*	*Children can carry out simple searches to retrieve digital content. They understand that to do this, they are connecting to the internet and using a search engine such as Purple Mash search or internet-wide search engines.*	*Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database **2Question**, using software such as **2Graph**. Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. **2Respond**.*	*Children demonstrate the importance of having a secure password and not sharing this with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure. They understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as **2Email** in Purple Mash. They know more than one way to report unacceptable content and contact.*

Computing Progression
N.C. Statements KS2 Year 4

	Computer Science				Information Technology		Digital Literacy
Statement	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 concern about content and contact.
Outcome	*When turning a real-life situation into an algorithm, the children's design shows that they are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition. Children make more intuitive attempts to debug their own programs.*	*Children's use of timers to achieve repetition effects are becoming more logical and are integrated into their program designs. They understand 'IF statements' for selection and attempt to combine these with other coding structures including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information while a program is executing, they are able to use and manipulate the value of variables. Children can make use of user inputs and outputs such as 'print to screen'. e.g. 2Code.*	*Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'IF' statements, repetition and variables. They can trace code and use step-through methods to identify errors in code and make logical attempts to correct this. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.*	*Children recognise the main component parts of hardware which allow computers to join and form a network. Their ability to understand the online safety implications associated with the ways the internet can be used to provide different methods of communication is improving.*	*Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level.*	*Children are able to make improvements to digital solutions based on feedback. Children make informed software choices when presenting information and data. They create linked content using a range of software such as **2Connect** and **2Publish+**. Children share digital content within their community, i.e. using Virtual **Display Boards**.*	*Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact.*

Computing Progression
N.C. Statements KS2 Year 5

	Computer Science				Information Technology		Digital Literacy
Statement	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 concern about content and contact.
Outcome	*Children may attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts. Children are able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code.*	*Children can translate algorithms that include sequence, selection and repetition into code with increasing ease and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures. They are combining sequence, selection and repetition with other coding structures to achieve their algorithm design.*	*When children code, they are beginning to think about their code structure in terms of the ability to debug and interpret the code later, e.g. the use of tabs to organise code and the naming of variables*	*Children understand the value of computer networks but are also aware of the main dangers. They recognise what personal information is and can explain how this can be kept safe. Children can select the most appropriate form of online communications contingent on audience and digital content, e.g. 2Blog, 2Email, Display Boards.*	*Children search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains.*	*Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.*	*Children have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.*

Computing Progression
N.C. Statements KS2 Year 6

	Computer Science				Information Technology		Digital Literacy
Statement	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 concern about content and contact.
Outcome	*Children are able to turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs. Children test and debug their program as they go and use logical methods to identify the cause of bugs, demonstrating a systematic approach to try to identify a particular line of code causing a **problem**.*	*Children translate algorithms that include sequence, selection and repetition into code and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures, including nesting structures within each other. Coding displays an improving understanding of variables in coding, outputs such as sound and movement, inputs from the user of the program such as button clicks and the **value of functions**.*	*Children are able to interpret a program in parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the **program as a whole**.*	*Children understand and can explain in some depth the difference between the internet and the World Wide Web. Children know what a WAN and LAN are and can describe how they access the **internet in school**.*	*Children readily apply filters when searching for digital content. They are able to explain in detail how credible a webpage is and the information it contains. They compare a range of digital content sources and are able to rate them in terms of content quality and accuracy. Children use critical thinking skills in everyday use of online communication.*	*Children make clear connections to the audience when designing and creating digital content. The children design and create their own blogs to become a content creator on the Internet, e.g. **2Blog**. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.*	*Children demonstrate the safe and respectful use of a range of different technologies and online services. They identify more discreet inappropriate behaviours through developing critical thinking, e.g. **2Respond** activities. They recognise the value in preserving their privacy when online for their own and other people's safety.*

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Impact:

Impact 1

Children will be confident users of technology, able to use it to accomplish a wide variety of goals, both at home and in school. Children will be able to show this in their work and in discussion.

Impact 2

Children will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and trends are rapidly evolving. Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems. Children will be able to stay safe online at school and outside of the school environment, as well as being able to access assistance from 'safe adults' when appropriate. Children will be able to show this in their work and in discussion, as well as their actions while accessing technology in and outside the classroom.