COMPUTING

THE FOXTON CURRICULUM

Foxton
Primary School
2022/23

At Foxton Primary School, we are digitally literate and confident users of technology.

Our Computing Curriculum

Computing and technology play a significant part in society today. At Foxton, we offer a structured scheme of work to ensure that the children cover the skills required to meet the aims of the National Curriculum and become digitally literate and confident users of technology. The content allows for a broad, deep understanding of computing and how it links to children's lives in an ever-changing and advancing world. It offers a range of opportunities for consolidation, challenge and variety. This allows children to apply the fundamental principles and concepts of computer science. They develop analytical problem-solving skills and learn to evaluate and apply information technology. It also enables them to become responsible, competent, confident and creative users of information technology.

Through the sequence of lessons, we hope to inspire pupils to develop a love of the digital world, see its place in their future and give teachers confidence. Cross-curricular links are also important in supporting other areas of learning. We help children to build on prior knowledge at the same time as introducing new skills and challenges.

During their time in Fox Cubs, children begin to develop a range of skills which underpin and enable access to our computing curriculum in Key Stage 1 and 2. These include developing resilience and perseverance in the face of challenges, knowing and talking about sensible amounts of screen time, developing their fine motor skills so they can use a range of tools competently, safely and confidently, as well as exploring the expressive arts and design to express ideas and feelings. In the summer term, children begin to use Bee-Bots and experiment using navigational language. Throughout the year, the children also learn how to use the interactive whiteboard, various apps on the iPad and enjoy roleplaying with phones and a shop till.

In Class 1, the focus is on developing the use of algorithms, programming and how technology can be used safely and purposefully. Further up the school, children continue to develop their knowledge of algorithms, programming and coding but in a more complex way and for different purposes. Children also learn about computer networks, internet services and the safe and purposeful use of the internet and technology. **Internet safety** is extremely important to us and is revisited regularly for all children. Data handling is featured more heavily in Class 3. The skills learnt during Class 1 and 2 are used to support data presentation.

Overview

Theme Key:

🟥 Coding and Computational thinking	🟦 Spreadsheets	🟩 Internet and Email	🟧 Art and Design	🟨 Music	🟪 Databases and graphing	🟪 Writing and Presenting	⬜ Communication and networks

In Year 1 and 2 coding, the lessons need to be taught in sequence as each lesson introduces skills that are consolidated and developed in the next lesson. Therefore, it is proposed to teach coding for 11 weeks in Cycle A and none in Cycle B. It is also beneficial for all children to recap unit 1.1 in both cycles as this introduces children new to the class with key skills needed to make the most of Purple Mash.

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
YEAR 1 & 2 – CYCLE A	Unit 1.1 Online Safety & Exploring Purple Mash Weeks – 4 Programs – Various					Unit 2.5 Effective Searching Weeks – 3 Programs – Browser			Unit 1.4 Lego Builders Weeks – 3 Programs – 2DIY			Unit 1.9 Technology outside school Weeks – 2 Programs – Various		Unit 1.2 Grouping & Sorting Weeks – 2 Programs – 2DIY		Unit 2.6 Creating Pictures Weeks – 5 Programs – 2PaintAPicture					Unit 1.8 Spreadsheets Weeks – 3 Programs – 2Calculate			Unit 1.7 Coding Weeks – 6 Programs – 2Code						Unit 2.1 Coding Weeks – 5 Programs – 2Code			

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
YEAR 1 & 2 – CYCLE B	Unit 1.1 Online Safety & Exploring Purple Mash Weeks – 4 Programs – Various					Unit 1.5 Maze Explorers Weeks – 3 Programs – 2Go			Unit 2.4 Questioning Weeks – 5 Programs – 2Question, 2Investigate					Unit 2.2 Online Safety Weeks – 3 Programs – Various			Unit 1.6 Animated Story Books Weeks – 5 Programs – 2Create A Story					Unit 2.7 Making Music Weeks – 3 Programs – 2Sequence			Unit 2.3 Spreadsheets Weeks – 4 Programs – 2Calculate				Unit 1.3 Pictograms Weeks – 3 Programs – 2Count			Unit 2.8 Presenting Ideas Weeks – 4 Programs – Various				

Year 3 & 4 Cycle A

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

YEAR 3 & 4 CYCLE A

- **Coding** (Weeks 1–6)
  - Number of Weeks – 6
  - Main Programs – 2Code
  - See table below for breakdown
- **Unit 3.2 Online safety** (Weeks 7–9)
  - Weeks – 3
  - Programs – Various
- **Unit 3.3 Spreadsheets** (Weeks 10–12)
  - Weeks – 3
  - Programs – 2Calculate
- **Unit 3.4 Touch Typing** (Weeks 13–16)
  - Weeks – 4
  - Programs – 2Type
- **Unit 3.5 Email (including email safety)** (Weeks 17–22)
  - Weeks – 6
  - Programs – 2Email, 2Connect, 2DIY
- **Unit 3.6 Branching Databases** (Weeks 23–26)
  - Weeks – 4
  - Programs – 2Question
- **Unit 3.7 Simulations** (Weeks 27–29)
  - Weeks – 3
  - Programs – 2Simulate, 2Publish
- **Unit 3.8 Graphing** (Weeks 30–32)
  - Weeks – 3
  - Programs – 2Graph

Year 3 & 4 Cycle B

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33

YEAR 3 & 4 CYCLE B

- **Coding** (Weeks 1–6)
  - Number of Weeks – 6
  - Main Programs – 2Code
  - See table below for breakdown
- **Unit 4.2 Online safety** (Weeks 7–10)
  - Weeks – 4
  - Programs – Various
- **Unit 4.3 Spreadsheets** (Weeks 11–16)
  - Weeks – 6
  - Programs – 2Calculate
- **Unit 4.4 Writing for different audiences** (Weeks 17–21)
  - Weeks – 5
  - Programs – 2Email, 2Connect, 2DIY
- **Unit 4.5 Logo** (Weeks 22–25)
  - Weeks – 4
  - Programs – Logo
- **Unit 4.6 Animation** (Weeks 26–28)
  - Weeks – 3
  - Programs – 2Animate
- **Unit 4.7 Effective Search** (Weeks 29–31)
  - Weeks – 3
  - Programs – Browser
- **Unit 4.8 Hardware Investigators** (Weeks 32–33)
  - Weeks – 2

* There is an optional unit 4.9 – Making Music that can be used in addition to the above units. It is a four week unit.

Coding Breakdown

YEAR 3 & 4 CYCLE A	Review previous coding – Year 3, Lesson 1	Simulating a physical system – Year 3, Lesson 2	Making a timer – Year 4, Lesson 4	Debugging – Year 3, Lesson 6	Making a control simulation – Year 4, Lesson 5	Decomposition and Abstraction – Year 4, Lesson 6
YEAR 3 & 4 CYCLE B	Review previous coding, Y4, lesson 1	Introducing 'if' statements – Year 3, Lesson 3	'if/else' statements – Year 4, Lesson 2	Repetition – Year 3, Lesson 5	Repeat until - Year 4, Lesson 3	Variables – Year 3, Lesson 4

YEAR 5 & 6 CYCLE A*

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Unit 5.1 Coding (Weeks 1–6)
Number of Weeks – 6
Main Programs – 2Code

Unit 5.2 Online safety (Weeks 7–9)
Weeks – 3
Programs - Various

Unit 5.3 Spreadsheets (Weeks 10–14)
Weeks – 5
Programs – 2Calculate

Unit 5.4 Databases (Weeks 15–18)
Weeks – 4
Programs – 2Question, 2Investigate

Unit 5.5 Game Creator (Weeks 19–23)
Weeks – 5
Programs – 2DIY 3D

Unit 5.6 3D Modelling (Weeks 24–27)
Weeks – 4
Programs – 2Design and Make

Unit 5.7 Concept Maps (Weeks 28–31)
Weeks – 4
Programs – 2Connect

YEAR 5 & 6 CYCLE B*

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Unit 6.1 Coding (Weeks 1–6)
Number of Weeks – 6
Main Programs – 2Code

Unit 6.2 Online safety (Weeks 7–9)
Weeks – 3
Programs - Various

Unit 6.3 Spreadsheets (Weeks 10–14)
Weeks – 5
Programs – 2Calculate

Unit 6.4 Blogging (Weeks 15–19)
Weeks – 5
Programs – 2Blog

Unit 6.5 Text Adventures (Weeks 20–24)
Weeks – 5
Programs – 2Code, 2Connect

Unit 6.6 Networks (Weeks 25–27)
Weeks – 3

Unit 6.7 Quizzing (Weeks 28–32)
Weeks – 6
Programs – 2Quiz, 2DIY, Text Toolkit, 2Investigate

*There is an optional unit 6.8 – Understanding Binary that can be used in addition to the above units. It is a four week unit.

Coding Breakdown

YEAR 5 & 6 CYCLE A	Review Previous coding – Year 5 Lesson 1	Simulating a physical system – Year 5 Lesson 2	Creating a game with a score and timer – Year 5 Lessons 4 and 5		The Launch Command – Year 5 Lesson 6	Using User Input – Year 6, Lesson 4
YEAR 5 & 6 CYCLE B	Designing and writing a more complex program – Year 6 Lessons 1 and 2		Introducing text variables – Year 5 Lesson 3	Introducing Functions – Year 6 Lesson 3	Flowcharts and control simulations – Year 6, Lesson 5	Text Adventure – Year 6 Lesson 6

Progression of Knowledge and Skills

	Class 1	Class 2	Class 3
Multimedia Text and Images	Children begin to understand the particular purposes technology can be used for and that by adding text and images you can communicate with technology. Children develop their skills in typing, selecting tools and organising information. **KS1 Computing National Curriculum** Children use technology purposefully to create, organise, store, manipulate and retrieve digital content. Children can: a add text strings, text boxes and show and hide objects and images, manipulating the features; b use various tools, such as brushes, pens, eraser, stamps and shapes, and set the size, colour and shape; c use applications and devices in order to communicate ideas, work, messages and demonstrate control; d save, retrieve and organise work; e use key vocabulary to demonstrate knowledge and understanding in this strand: paint, colour, brush, tools, settings, undo, redo, text, image, size, poster, launch, application, software, window, minimise, restore, size, move, screen, close, click, drag, log on, log off, keyboards, keys, mouse, click, button, double click, drag, present.	Children develop their skills of formatting using keyboard commands, organising their work to demonstrate effect. In LKS2, they will have the opportunity to express themselves more through digital technology, art, PowerPoint and posters. Children should continue to demonstrate control when operating tools as in KS1. **KS2 Computing National Curriculum** Children 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. They 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. Children can: a create different effects with different technological tools, demonstrating control; b use appropriate keyboard commands to amend text on a device; c use applications and devices in order to communicate ideas, work, and messages; d save, retrieve and evaluate work, making amendments;	Children begin to look at new software, creating 3D models and learning how to orbit, zoom and develop their editing skills further. They become more confident in inserting links, images and formatting text to create effect. **KS2 Computing National Curriculum** Children 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. Children can: a use the skills already developed to create content using unfamiliar technology; b select, use and combine the appropriate technology tools to create effect; c review and improve their own work and support others to improve their work; d save, retrieve and evaluate their work, making amendments; e insert a picture/text/graph/hyperlink from the internet or personal file; f use key vocabulary to demonstrate knowledge and understanding in this strand: window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide.

		e insert a picture/text/graph/hyperlink from the internet or a personal file; f use key vocabulary to demonstrate knowledge and understanding in this strand: draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, plan, link, image, object, link, hyperlink, minimise, restore, size, move, screen, split, create, organise, file, folder, close, exit, search, print, password, screenshot, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck.	
Multimedia Sound and Motion	Children begin to develop their creativity using technology through recording sound. Children will also begin to develop their editing skills and control of the tools. **KS1 Computing National Curriculum** Children use technology purposefully to create, organise, store, manipulate and retrieve digital content. Children can: a use software to record sounds; b change sounds recorded; c save, retrieve and organise work; d use key vocabulary to demonstrate knowledge and understanding in this strand: commands, add sound.	Children develop their editing skills further by cropping, organising and arranging film clips. They are able to share work and offer feedback and ideas for improvement with animation and film, giving their opinion on which software to use. In LKS2, children also look at the history of animation and reflect upon the changes over time. **KS2 Computing National Curriculum** Children 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. Children can: a use software to record, create and edit sounds and capture still images; b change recorded sounds, volume, duration and pauses; c use software to capture video for a purpose; d crop and arrange clips to create a short film;	Children begin to look more into multimedia broadcasting, learning new skills including recording jingles, podcasts and narration. They become more confident in post-production with editing, trimming and refining their work based on plans they have made. **KS2 Computing National Curriculum** Children 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. Children can: a collect audio from a variety of resources including own recordings and internet clips; b use a digital device to record sounds and present audio; c trim, arrange and edit audio levels to improve quality; d publish their animation and use a movie

		e plan an animation and move items within each animation for playback; f use key vocabulary to demonstrate knowledge and understanding in this strand: audio, sound, video, movie, embed, link, file format, animate, animation, still image, thaumatrope, zoetrope, zoopraxiscope, stereoscope, flip book, frame, onion skinning, loop, frame rate, record, stop, play, stop motion, stop frame.	editing package to edit/refine and add titles; e use key vocabulary to demonstrate knowledge and understanding in this strand: audio, record, edit, play stop, skip, waveform, input, output, record, edit, play podcast, digital content, downloadable, backing track, voiceover, mute, gain, production, post-production, documentary, project, evaluation, screening, ceremony, upload.
Handling Data		Children begin to explore expressing information in tables, sorting and organising information for others to be able to understand. **KS2 Computing National Curriculum** Children 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. Children can: a talk about the different ways data can be organised; b sort and organize information to use in other ways; c search a ready-made database to answer questions; d use key vocabulary to demonstrate knowledge and understanding in this strand: Google Docs, insert, table.	Data Handling in UKS2 focuses on selecting the correct method to display data and using software such as spreadsheets. Children also learn how to check the accuracy of data and compare data for a specific purpose. **KS2 Computing National Curriculum** Children 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. Children can: a construct data on the most appropriate application; b know how to interpret data, including spotting inaccurate data and comparing data; c use keyboard shortcuts and functions to input data on spreadsheets and create formulas for spreadsheets; d add data to an existing database;

			e use key vocabulary to demonstrate knowledge and understanding in this strand: Google Docs, insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending.

Technology in Our Lives	Children begin to make links to how they use technology outside of the classroom. They begin to think about the benefits of using technology in their lives, making links to learning about online safety. **KS1 Computing National Curriculum** Children recognise common uses of technology beyond school. They use technology safely and respectfully, keeping personal information private; they identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. Children can: a recognise ways that technology is used in the home and community, e.g. taking photos, blogs, shopping; b use links to websites to find information; c recognise age-appropriate websites; d use safe search filters; e use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, internet, subject, address, communicate, sender, safe, secure.	Children refer to online safety rules when discussing technology in their lives. They are able to navigate between websites and use safe search terms on trusted search engines. They become more confident in using email for communication, including attaching and saving files from emails. **KS2 Computing National Curriculum** Children 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. They use search technologies effectively, appreciate how results are selected and ranked, and are discerning in evaluating digital content. Children can: a explain ways to communicate with others online; b describe the world wide web as the part of the internet that contains websites; c add websites to a favourites list; d use search tools to find and use an appropriate website and content; e use strategies to improve results when searching online; f use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, subject, address,	Children can use safe search terms on trusted search engines, and evaluate websites based on layout and information. They become more confident in understanding Google rankings, adverts and the reliability of websites. **KS2 Computing National Curriculum** Children 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. They use search technologies effectively, appreciate how results are selected and ranked, and are discerning in evaluating digital content. Children can: a search for information using appropriate websites and advanced search functions within Google; b use strategies to check the reliability of information (cross-check with another source such as books); c talk about the way search results are selected and ranked; d check the reliability of a website, including the photos on site; e tell you about copyright and acknowledge the sources of information; f use key vocabulary to demonstrate knowledge and understanding in this

		communicate, sender, safe, secure, internet, world wide web, social media.	strand: world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, https, site, domain, website, browser, address bar.
Coding and Programming	Children begin to understand their influence on technology by developing their programming skills to determine output. They begin to understand that an algorithm is a series of steps for solving problems and a code is a series of steps that machines can execute. They begin to explore debugging, predicting when codes may not work and changing them. **KS1 Computing National Curriculum** Children understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. They create, debug and use logical reasoning to predict the behaviour of simple programs. Children can: a give commands one at a time to control direction and movement, including straight, forwards, backwards, turn; b control the nature of events: repeat, loops, single events and add and delete features; c give a set of instructions to follow and predict what will happen; d improve/change their sequence of commands by debugging; e use key vocabulary to demonstrate	Children build on their programming skills by solving problems and programming commands to achieve a specific outcome. They begin to write programs, explain algorithms and identify errors in their work. **KS2 Computing National Curriculum** Children design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; they solve problems by decomposing them into smaller parts. They use sequence, selection, and repetition in programs and work with variables and various forms of input and output. They use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Children can: a use logical thinking to solve an open-ended problem by breaking it up into smaller parts; b write a program, putting commands into a sequence to achieve a specific outcome; c give a set of instructions to follow and predict what will happen; d keep testing a program and recognise when it needs to be debugged; e use variables to create an effect, e.g. repetition, if,	Children build on their programming skills by using new systems such as a flowchart. They continue to break down problems and create algorithms to solve them. They are able to explain the outcome of an algorithm with confidence and accuracy. **KS2 Computing National Curriculum** Children design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; they solve problems by decomposing them into smaller parts. They use sequence, selection, and repetition in programs and work with variables and various forms of input and output. They use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Children can: a use external triggers and infinite loops to demonstrate control; b follow a sequence of instructions, e.g. in a flowchart and modify a flowchart using symbols; c use conditional statements and edit variables; d decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program;

	knowledge and understanding in this strand: algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink.	when, loop; f use key vocabulary to demonstrate knowledge and understanding in this strand: decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable.	e keep testing a program and recognise when it needs to be debugged; f use key vocabulary to demonstrate knowledge and understanding in this strand: flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, commentary, sequence, consequence, debug, program, Kodu, world, object, tool palette, program environment, smooth, flatten, raise.

Online Safety	Children begin to consider their activity on the internet and learn about ways to keep themselves safe and why it is important to do so. They also compare appropriate and inappropriate activity on the internet and decide what to do next. **KS1 Computing National Curriculum** Children can use technology safely and respectfully, keeping personal information private; they identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. Children can: a identify what things count as personal information; b identify what is appropriate and inappropriate behaviour on the internet; c agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords; d seek help from an adult when they see something that is unexpected or worrying;	Children become more aware of their digital footprint by reflecting on their experience on the internet. They are able to understand more about age-appropriate websites and adverts and how adverts are used by companies. Children are also introduced to the concept of plagiarism and citation. **KS2 Computing National Curriculum** Children use technology safely, respectfully and responsibly. They recognise acceptable/unacceptable behaviour and identify a range of ways to report concerns about content and contact. Children can: a reflect on their own digital footprint and behaviour online; b identify what is appropriate and inappropriate behaviour on the internet, recognising the term cyberbullying; c agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords; d seek help from an adult when they see	Children are encouraged to identify online risks and share their knowledge of the risks and consequences for people online. They begin to think more critically about what they see online and look at the concept of fake news and false photographs. **KS2 Computing National Curriculum** Children use technology safely, respectfully and responsibly. They recognise acceptable/unacceptable behaviour and identify a range of ways to report concerns about content and contact. Children can: a protect their password and other personal information; b be a good online citizen and friend; c judge what sort of privacy settings might be relevant to reducing different risks; d seek help from an adult when they see something that is unexpected or worrying; e discuss scenarios involving online risk; f use key vocabulary to demonstrate

e	demonstrate how to safely open and close applications and log on and log off from websites;
f	use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, key, question, tell, safe, share, stranger, danger, internet.

something that is unexpected or worrying;

e demonstrate understanding of age-appropriate websites and adverts;

f use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public.

knowledge and understanding in this strand: spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraud/fraudulent, policy, private/personal.

Knowing more and remembering more

Every computing lesson starts with retrieval practice in order to combat the forgetfulness curve. For example, when children in Class 2 begin a unit of coding, they will be asked questions to recall knowledge from their previous coding units as well as from what they have learnt more recently. Through our responsive teaching, staff continuously monitor pupils' progress against expected attainment for their age and provide in-lesson feedback in order to move the learning forward. Additional support and challenge is provided as required.

Learning in computing is enjoyed across the school. Teachers have high expectations and quality evidence is presented in a variety of forms, sometimes saved electronically on our network and other times printed as hard copies. Children use digital and technological vocabulary accurately, alongside their progression in technical skills. Children become confident using a range of hardware and software and produce high-quality purposeful products. Children leave Foxton seeing the digital world as part of their world, extending beyond school, and understand that they have choices to make in the future.

A Global Curriculum

We aim for all children to be confident and respectful digital citizens going on to lead happy and healthy digital lives. Computing plays a fundamental part in our global curriculum as it allows access to content, opinion and resources beyond our immediate vicinity. During the 2022-23 academic year, we hope to establish a British Council School Partnership in order to communicate with and learn from children and teachers in other parts of the world with experiences very different to our own. Safe, competent use of technology is also essential to our enquiry projects and case studies that require desktop research. As part of our global curriculum, the children at Foxton also learn about the importance of sustainability, recycling as well as clean and affordable energy, all of which have links to our computing curriculum.

Appendix 1

National Curriculum

Aims
The national curriculum for computing aims to ensure that all pupils: • can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation • can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems • can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems • are responsible, competent, confident and creative users of information and communication technology.

Subject content	
Key stage 1 Pupils should be taught to: • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • create and debug simple programs • use logical reasoning to predict the behaviour of simple programs • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	**Key stage 2** Pupils should be taught to: • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

	- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.