Curriculum plan

Curriculum approach and progression

Coherence and flexibility

Our curriculum is structured in units. For these units to be coherent, the lessons within a unit must be taught in order. However, across a year group, the units themselves do not need to be taught in order, with the exception of 'Programming' units, where concepts and skills rely on prior learning and experiences.

All learning outcomes can be described through a high-level taxonomy of ten strands, ordered alphabetically as follows:

- **Algorithms** — Be able to comprehend, design, create, and evaluate algorithms.
- **Computer networks** — Understand how networks can be used to retrieve and share information, and how they come with associated risks.
- **Computer systems** — Understand what a computer is, and how its constituent parts function together as a whole.
- **Creating media** — Select and create a range of media including text, images, sounds, and video.
- **Data and information** — Understand how data is stored, organised, and used to represent real-world artefacts and scenarios.
- **Design and development** — Understand the activities involved in planning, creating, and evaluating computing artefacts.
- **Effective use of tools** — Use software tools to support computing work.
- **Impact of technology** — Understand how individuals, systems, and society as a whole interact with computer systems.
- **Programming** — Create software to allow computers to solve problems.
- **Safety and security** — Understand risks when using technology, and how to protect individuals and systems.

The taxonomy provides categories and an organised view of content to encapsulate the discipline of computing. Whilst all strands are present at all phases, they are not always taught explicitly.

Spiral curriculum design

The units for key stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years.

Progression

Progression across key stages All learning objectives have been mapped to the National Centre for Computing Education's taxonomy of ten strands, which ensures that units build on each other from one key stage to the next. Progression across year groups Within the Teach Computing Curriculum, every year group learns through units within the same four themes, which combine the ten strands of the National Centre for Computing Education's taxonomy.

Progression across key stages

All learning objectives have been mapped to the National Centre for Computing Education's taxonomy of ten strands, which ensures that units build on each other from one key stage to the next.

Progression across year groups

Within the Teach Computing Curriculum, every year group learns through units within the same four themes, which combine the ten strands of the National Centre for Computing Education's taxonomy (see table, below). This approach allows us to use the spiral curriculum approach to progress skills and concepts from one year group to the next.

	Computing systems and networks	Programming	Data and information	Creating media
Taxonomy strands	Computer systems Computer networks	Programming Algorithms Design and development	Data and information	Creating media Design and development
	Effective use of tools			
	Impact of technology			
	Safety and security			

Our Computing Curriculum is built upon 12 principles and application can be found throughout the units of work at every key stage.

	Lead with concepts	Support pupils in the acquisition of knowledge, through the use of key concepts, terms, and vocabulary, providing opportunities to build a shared and consistent understanding. Glossaries, concept maps, and displays, along with regular recall and revision, can support this approach.
	Working Together	Encourage collaboration, specifically using pair programming and peer instruction, and also structured group tasks. Working together stimulates classroom dialogue, articulation of concepts, and development of shared understanding.
	Get Hands On	Use physical computing and making activities that offer tactile and sensory experiences to enhance learning. Combining electronics and programming with arts and crafts (especially through exploratory projects) provides pupils with a creative, engaging context to explore and apply computing concepts.
	Unplug, unpack, repack	Teach new concepts by first unpacking complex terms and ideas, exploring these ideas in unplugged and familiar contexts, then repacking this new understanding into the original concept. This approach, called 'semantic waves', can help pupils develop a secure understanding of complex concepts.

	Model everything	Model processes or practices — everything from debugging code to binary number conversions — using techniques such as worked examples and live coding. Modelling is particularly beneficial to novices, providing scaffolding that can be gradually taken away.
	Foster program comprehension	Use a variety of activities to consolidate knowledge and understanding of the function and structure of programs, including debugging, tracing, and Parson's Problems. Regular comprehension activities will help secure understanding and build connections with new knowledge.
	Create projects	Use project-based learning activities to provide pupils with the opportunity to apply and consolidate their knowledge and understanding. Design is an important, often overlooked aspect of computing. Pupils can consider how to develop an artefact for a particular user or function, and evaluate it against a set of criteria.
	Add variety	Provide activities with different levels of direction, scaffolding, and support that promote learning, ranging from highly structured to more exploratory tasks. Adapting your instruction to suit different objectives will help keep all pupils engaged and encourage greater independence.
	Challenge misconceptions	Use formative questioning to uncover misconceptions and adapt teaching to address them as they occur. Awareness of common misconceptions alongside discussion, concept mapping, peer instruction, or simple quizzes can help identify areas of confusion.
	Make concrete	Bring abstract concepts to life with real-world, contextual examples and a focus on interdependencies with other curriculum subjects. This can be achieved through the use of unplugged activities, proposing analogies, storytelling around concepts, and finding examples of the concepts in pupils' lives.
	Structure lessons	Use supportive frameworks when planning lessons, such as PRIMM (Predict, Run, Investigate, Modify, Make) and (Use-Modify-Create). These frameworks are based on research and ensure that differentiation can be built in at various stages of the lesson.
	Read and explore code first	When teaching programming, focus first on code 'reading' activities, before code writing. With both block-based and text-based programming, encourage pupils to review and interpret blocks of code. Research has shown that being able to read, trace, and explain code augments pupils' ability to write code.

Curriculum Overview White – Just plain teaching Yellow – iPads Blue – Vex 123 Green – Laptops Purple – Microbits/Laptops

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Computing systems and networks Laptops www.paintz.app Technology around us	Creating media Safari www.paintz.app Digital painting	Programming A VEX 123 Moving a robot	Data and information Laptops Shared drive Grouping data	Creating media Word* Digital writing	Programming B Scratch Jr* Programming animations
Year 2	Creating media Photo Editor Digital photography	Computing systems and networks PowerPoint Information technology around us	Programming A VEX 123 Robot algorithms	Data and information https://www.j2e.com/jit5#pictogram https://www.j2e.com/jit5#chart Pictograms	Creating media Chrome Music Lab Digital music	Programming B Scratch Junior Programming quizzes
Year 3	Computing systems and networks Server/wireless hubs Connecting computers	Creating media iMotion/Stop Motion Stop-frame animation	Programming A Scratch Sequencing sounds	Data and information https://www.j2e.com/jit5#branch Branching databases	Creating media Word*/Canva Desktop publishing	Programming B Scratch on Safari* Events and actions in programs
Year 4	Creating media iMovie/Audacity Audio production	Computing systems and networks https://musiclab.chromeexperiments.com/ The internet	Programming A Turtle Academy Repetition in shapes	Data and information Data loggers? Data logging	Creating media Paint/freeform Photo editing	Programming B Scratch Repetition in games
Year 5	Computing systems and networks Search engines Systems and searching	Creating media iMovie Video production	Programming A Micro-bits Selection in physical computing	Data and information www.j2e.com/data/examples Flat-file databases	Creating media Scratch Selection in quizzes	Programming B Google account (login) Google drawings Introduction to vector graphics
Year 6	Creating media Google account (login) Google sites Webpage creation	Computing systems and networks Communication and collaboration	Programming A Micro-bits/Scratch Variables in games	Data and information Excel Introduction to spreadsheets	Creating media www.tinkercad.com (need a login) 3D modelling	Programming B Scratch/microbit Sensing movement

Curriculum Overview White – Just plain teaching Yellow – iPads Blue – Vex 123 Green – Laptops Purple – Microbits/Laptops

	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 1	**Technology around us** Recognising technology in school and using it responsibly.	**Digital painting** Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	**Moving a robot** Writing short algorithms and programs for floor robots and predicting program outcomes.	**Grouping data** Exploring object labels, then using them to sort and group objects by properties.	**Digital writing** Using a computer to create and format text, before comparing to writing non-digitally.	**Programming animations** Designing and programming the movement of a character on screen to tell stories.
Year 2	**Digital photography** Capturing and changing digital photographs for different purposes.	**Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond.	**Robot algorithms** Creating and debugging programs, and using logical reasoning to make predictions.	**Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.	**Digital music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	**Programming quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.
Year 3	**Connecting computers** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.	**Stop-frame animation** Capturing and editing digital still images to produce a stop-frame animation that tells a story.	**Sequencing sounds** Creating sequences in a block-base programming language to make music.	**Branching databases** Building and using branching databases to group objects using yes/no questions.	**Desktop publishing** Creating documents by modifying text, images, and page layouts for a specified purpose.	**Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	**Audio production** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	**The internet** Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	**Repetition in shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes.	**Data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	**Photo editing** Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	**Repetition in games** Using a block-based programming language to explore count-controlled and infinite loops when creating a game.
Year 5	**Systems and searching** Recognising IT systems in the world and how some can enable searching on the internet.	**Video production** Planning, capturing, and editing video to produce a short film.	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller.	**Flat-file databases** Using a database to order data and create charts to answer questions.	**Selection in quizzes** Exploring selection in programming to design and code an interactive quiz.	**Introduction to vector graphics** Creating images in a drawing program by using layers and groups of objects.
Year 6	**Webpage creation** Designing and creating webpages, considering copyright, aesthetics, and navigation.	**Communication and collaboration** Exploring how data is transferred by working collaboratively online.	**Variables in games** Exploring variables when designing and coding a game.	**Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data.	**3D modelling** Planning, developing, and evaluating 3D computer models of physical objects.	**Sensing movement** Designing and coding a project that captures inputs from a physical device.

Online Safety

We have based our Online Safety curriculum on the Project Evolve resources.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Self-Image and Identity 	I know, that I can say 'no' - 'please stop' - 'I'll tell' - 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset.	I can recognise that there may be people online who could make someone feel sad, embarrassed or upset. If something makes me feel sad, worried or uncomfortable I can say when and how to speak to an adult I can trust to get help.	I can explain how other people may look and act differently online and offline. I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help.	I can explain how people can represent themselves in different ways online I can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why.	I can explain how my online identity can be different to my offline identity. I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.	I can explain how identity online can be copied, modified or altered. I can demonstrate how to make responsible choices about having an online identity, depending on context.	I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online. I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline.
Online Relationships 	I can identify ways that I can put information on the internet. We talk about ways in which the internet can be used to communicate. We talk about how I (might) use technology to communicate with people I know.	I can give examples of when I should ask permission to do something online and explain why this is important.	I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure.	I can explain what it means to 'know someone' online and why this might be different from knowing someone offline.	I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms).	I can describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities or social media groups).	I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Online Reputation 	I can identify ways that I can put information on the internet.	I can recognise that information can stay online and could be copied. I can describe what information I should not put online without asking a trusted adult first.	I can explain how information put online about someone can last for a long time. I can describe how anyone's online information could be seen by others.	I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal. I can explain who someone can ask if they are unsure about putting something online.	I can describe how to find out information about others by searching online. I can explain ways that some of the information about anyone online could have been created, copied or shared by others.	I can search for information about an individual online and summarise the information found. I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect	I can explain the ways in which anyone can develop a positive online reputation. I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.
Online Bullying 	I can describe ways that some people can be unkind online.	I can describe how to behave online in ways that do not upset others and can give examples.	I can explain what bullying is, how people may bully others and how bullying can make someone feel.	I can describe appropriate ways to behave towards other people online and why this is important.	I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).	I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences.	I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me.
Managing online information 	I can talk about how to use the internet as a way of finding information online. I can identify devices I could use to access information on the internet.	I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching. I know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke.	I can use simple keywords in search engines I can explain what voice activated searching is and how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri).	I can explain the difference between a 'belief', an 'opinion' and a 'fact. and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc. I can demonstrate how to use key phrases in search engines to gather accurate information online.	I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online. I can explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't.	I can explain the benefits and limitations of using different types of search technologies e.g. voice-activation search engine. I can explain how some technology can limit the information I am presented with. I can describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content	I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and 'ad targeting' and targeting for fake news). I can explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						creators, influencers).	
Health, Well-being and Lifestyle 	I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can give some simple examples of these rules	I can explain rules to keep myself safe when using technology both in and beyond the home.	I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment.	I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites).	I can identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time.	I can explain how and why some apps and games may request or take payment for additional content (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before purchasing.	I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.
Privacy and Security 	I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location) I can describe who would be trustworthy to share this information with; I can explain why they are trusted.	I can explain how passwords are used to protect information, accounts and devices. I can recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to school, family names).	I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords). I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).	I can describe simple strategies for creating and keeping passwords private. I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult.	I can describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure. I know what the digital age of consent is and the impact this has on online services asking for consent.	I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.	I can describe how and why people should keep their software and apps up to date, e.g. auto updates. I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing).
Copyright and Ownership 	I know that work I create belongs to me. I can name my work so that others know it belongs to me.	I can explain why work I create using technology belongs to me	I can recognise that content on the internet may belong to other people.	I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause.	When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it.	I can give examples of content that is permitted to be reused and know how this content can be found online.	I can demonstrate the use of search tools to find and access online content which can be reused by others.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

EYFS Computing Long Term Plan

EYFS Aims
Despite computing not being explicitly mentioned in the Early Years Foundation Stage (EYFS) framework, there are many opportunities for young children to use technology to solve problems and produce creative outcomes. Through providing children the opportunity to engage in activities that are based around computer science, information technology, online safety and digital literacy, we are preparing them for the digital world in which they live and ensuring that they are fully prepared to transition into key stage 1.

ELG Content
Physical Development Pupils should be given the opportunity to: • Use their core muscle strength to achieve a good posture when sitting at a table, • Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of 'screen time', • Develop manipulation and control, • Use and remember sequences and patterns of movement. **Understanding the World** Pupils should be given the opportunity to: • Explore how things work, • Have an understanding that repeated actions have an effect.

Resources
• https://www.barefootcomputing.org/earlyyears • Curriculum teaching resources (teachcomputing.org) • ProjectEVOLVE - Education for a Connected World Resources

EYFS Computing Long Term Plan

Autumn 1	Spring 1	Summer 1
Online Safety and Digital Literacy		
Self-Image and Identity – 1 activity • I know, that I can say 'no' - 'please stop' - 'I'll tell' - 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset. https://projectevolve.co.uk/toolkit/resources/years/early-years-7/self-image-and-identity/	**Managing Online Information – 2 activities** • I can talk about how to use the internet as a way of finding information online. • I can identify devices I could use to access information on the internet. https://projectevolve.co.uk/toolkit/resources/years/early-years-7/managing-online-information/ **Online Reputation - 1 activity** *(deliver on Safer Internet Day)* • I can identify ways that I can put information on the internet. https://projectevolve.co.uk/toolkit/resources/years/early-years-7/online-reputation/	**Privacy and Security – 2 activities** • I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). • I can describe who would be trustworthy to share this information with; I can explain why they are trusted. https://projectevolve.co.uk/toolkit/resources/years/early-years-7/privacy-and-security/
Computer Science		
Awesome Autumn – Barefoot Computing	Busy Bodies – Barefoot Computing	Boats Ahoy – Barefoot Computing
Information Technology		
Turing on and off any device Navigating a tablet and taking pictures.	Mouse and keyboard skills	Create a story board (beginning, middle and end) with support.
Key Vocabulary		
N – safe, creating, pattern, switch R – uncomfortable, collaborating, algorithm, power	N – online, fixing, solving, click R – information, debugging, abstracting, right, left	N – personal, making, thinking, order R – trustworthy, tinkering, logic, sequencing
Suggested Texts		
Pumpkin Soup – Helen Cooper	Me and My Amazing Body – Joan Sweeney	Lost and Found – Oliver Jeffers

Autumn 2	**Spring 2**	**Summer 2**
Online Safety and Digital Literacy		
Online Bullying - 1 activity *(deliver during Anti-Bullying Week)* • I can describe ways that some people can be unkind online. https://projectevolve.co.uk/toolkit/resources/years/early-years-7/online-bullying/ **Online Relationships - 1 activity** • We talk about ways in which the internet can be used to communicate. We talk about how I (might) use technology to communicate with people I know. https://projectevolve.co.uk/toolkit/resources/years/early-years-7/online-relationships/	**Health, Well-being and Lifestyle – 2 activities** • I can identify rules that help keep us safe and healthy in and beyond the home when using technology. • I can give some simple examples of these rules https://projectevolve.co.uk/toolkit/resources/years/early-years-7/health-well-being-and-lifestyle/	**Copyright and Ownership – 2 activities** • I know that work I create belongs to me. • I can name my work so that others know it belongs to me. https://projectevolve.co.uk/toolkit/resources/years/early-years-7/copyright-and-ownership/
Computer Science		
Winter Warmers – Barefoot Computing	Springtime – Barefoot Computing	Summer Fun – Barefoot Computing
Information Technology		
Taking pictures using a tablet	Create a picture/image based on topic on a computer/tablet.	Create a digital book using the Our Story 2 App
Key Vocabulary		
N – unkind, trying, accurate, tablet R – bullying, persevering, precise, technology	N – instructions, feelings, easier, draw R – rules, emotions, simplify, create	N – belong, journey, thinking, order R – ownership, guidance, tinkering, producing
Suggested Texts		
Once upon a time online – David Bedford	The Tiny Seed – Eric Carle	What the Ladybird Heard at the Seaside – Julia Donaldson

Key Stage One Computing Long Term Plan

KS1 - 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.

KS1 – Content

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.

Resources

- https://teachcomputing.org/curriculum/key-stage-1
- Curriculum teaching resources (teachcomputing.org)
- ProjectEVOLVE - Education for a Connected World Resources

Year One Computing Long Term Plan

Autumn 1	Spring 1	Summer 1
Online Safety and Digital Literacy		
Self-Image and Identity – 2 activities • I can recognise that there may be people online who could make someone feel sad, embarrassed or upset. • If something makes me feel sad, worried or uncomfortable I can say when and how to speak to an adult I can trust to get help. https://projectevolve.co.uk/toolkit/resources/years/year-one/self-image-and-identity/ Coding week	**Online Reputation – 2 activities** • I can recognise that information can stay online and could be copied. • I can describe what information I should not put online without asking a trusted adult first. https://projectevolve.co.uk/toolkit/resources/years/year-one/online-reputation/	**Managing Online Information – 2 activities** • I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching. • I know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke. https://projectevolve.co.uk/toolkit/resources/years/year-one/managing-online-information/
Computing system and networks - Technology around us	**Programming – Moving a robot**	**Creating media – Digital writing**
• Technology in the classroom • Using technology • Developing mouse skills • Using a computer keyboard • Developing keyboard skills • Using a computer responsibly	• Buttons • Directions • Forwards and backwards • Four directions • Getting there • Routes	• Exploring the keyboard • Adding and removing text • Exploring the tool bar • Making changes to text • Explaining my choices • Pencil or keyboard
Key Vocabulary		
Technology, Computer, mouse, trackpad, keyboard, screen, double-click, typing	Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program.	word processor, keyboard, keys, letters, type, numbers, space, backspace, text cursor, capital letters, toolbar, bold, italic, underline, mouse, select, font, undo, redo, format, compare, typing, writing.

Autumn 2	Spring 2	Summer 2
Online Safety and Digital Literacy		
Online Bullying – 1 activity *(Deliver during Anti-Bullying Week)* • I can describe how to behave online in ways that do not upset others and can give examples. https://projectevolve.co.uk/toolkit/resources/years/year-one/online-bullying/ **Online Relationships – 1 activity** • I can give examples of when I should ask permission to do something online and explain why this is important. https://projectevolve.co.uk/toolkit/resources/years/year-one/online-relationships/	**Health, Well-being and Lifestyle – 1 activity** • I can explain rules to keep myself safe when using technology both in and beyond the home. https://projectevolve.co.uk/toolkit/resources/years/year-one/health-well-being-and-lifestyle/	**Privacy and Security – 2 activities** • I can explain how passwords are used to protect information, accounts and devices. • I can recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to school, family names). https://projectevolve.co.uk/toolkit/resources/years/year-one/privacy-and-security/ **Copyright and Ownership – 1 activity** • I can explain why work I create using technology belongs to me https://projectevolve.co.uk/toolkit/resources/years/year-one/copyright-and-ownership/
Creating media – Digital painting	**Data and information – grouping data**	**Programming – animations**
• How can we paint using computer? • Using shapes and lines • Making careful choices • Why did I choose that? • Painting all by myself • Comparing computer art and painting.	• Label and match • Group and count • Describe an object • Making different groups • Comparing groups • Answering questions.	• Comparing tools • Joining blocks • Making a change • Adding sprites • Project design • Following my design
Key Vocabulary		
Paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour, brush style, brush size, pictures, painting, computers	Object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same	ScratchJr, command, sprite, compare, programming, area, block, joining, start, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, design.

Year Two Computing Long Term Plan

Autumn 1	Spring 1	Summer 1
Online Safety and Digital Literacy		
Self-Image and Identity - 2 activities • I can explain how other people may look and act differently online and offline. • I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help. https://projectevolve.co.uk/toolkit/resources/years/year-two/self-image-and-identity/	**Online Reputation – 2 activities** • I can explain how information put online about someone can last for a long time. • I can describe how anyone's online information could be seen by others. https://projectevolve.co.uk/toolkit/resources/years/year-two/online-reputation/	**Managing Online Information – 2 activities** • I can use simple keywords in search engines • I can explain what voice activated searching is and how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri). https://projectevolve.co.uk/toolkit/resources/years/year-two/managing-online-information/
Computing system and networks – Technology around us	**Programming – Robot algorithm**	**Creating media – Digital music**
• What is IT? • IT in school • IT in the world • The benefits of IT • Using IT safely • Using IT in different ways Coding week	• Buttons • Directions • Forwards and backwards • Four directions • Getting there • Routes	• How music makes us feel • Rhythms and patterns • How music can be used • Notes and tempo • Creating digital music • Reviewing and editing music
Key Vocabulary		
Information technology (IT), computer, barcode, scanner/scan	Instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition	Music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create, emotion, beat, instrument, open, edit.

Autumn 2	Spring 2	Summer 2
Online Safety and Digital Literacy		
Online Bullying – 1 activity *(Deliver during Anti-Bullying Week)* • I can explain what bullying is, how people may bully others and how bullying can make someone feel. https://projectevolve.co.uk/toolkit/resources/years/year-two/online-bullying/ **Online Relationships – 1 activity** • I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure. https://projectevolve.co.uk/toolkit/resources/years/year-two/online-relationships/	**Health, Well-being and Lifestyle – 1 activity** • I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment. https://projectevolve.co.uk/toolkit/resources/years/year-two/health-well-being-and-lifestyle/	**Privacy and Security – 2 activities** • I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords). • I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords). https://projectevolve.co.uk/toolkit/resources/years/year-two/privacy-and-security/ **Copyright and Ownership – 1 activity** • I can recognise that content on the internet may belong to other people. https://projectevolve.co.uk/toolkit/resources/years/year-two/copyright-and-ownership/
Creating media – digital photography	**Data and information – pictograms**	**Programming – Programming quizzes**
• Taking photographs • Landscape or portrait • What makes a good photograph? • Lighting • Effects • Is it real?	• Counting and comparing • Enter the data • Creating pictograms • What is an attribute? • Comparing people • Presenting information	• ScratchJr recap • Outcomes • Using a design • Changing a design • Designing and creating a program • Evaluating
Key Vocabulary		
device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter, format, framing, lighting,	more than, less than, most, least, common, popular, organise, data, object, tally chart, votes, total, pictogram, enter, data, compare, objects, count, explain, attribute, group, same, different, conclusion, block diagram, sharing	sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify, change, algorithm, build, match, compare, debug, features, evaluate, decomposition, code.

Key Stage Two Computing Long Term Plan

KS2 - 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.

KS2 – Content

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.

Resources

- Key Stage 2 (teachcomputing.org)
- Curriculum teaching resources (teachcomputing.org)
- ProjectEVOLVE - Education for a Connected World Resources

Year Three Computing Long Term Plan

Autumn 1	Spring 1	Summer 1
Online Safety and Digital Literacy		
Self-Image and Identity - 2 activities • I can explain how people can represent themselves in different ways online • I can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why. https://projectevolve.co.uk/toolkit/resources/years/year-three/self-image-and-identity/	**Online Reputation – 2 activities** • I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal. • I can explain who someone can ask if they are unsure about putting something online. https://projectevolve.co.uk/toolkit/resources/years/year-three/online-reputation/	**Managing Online Information – 2 activities** • I can explain the difference between a 'belief', an 'opinion' and a 'fact. and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc. • I can demonstrate how to use key phrases in search engines to gather accurate information online. https://projectevolve.co.uk/toolkit/resources/years/year-three/managing-online-information/
Computing systems and networks – Connecting computers	**Programming – Sequencing sound**	**Creating media – Desktop publishing**
• How does a digital device work? • What parts make up a digital device? • How do digital devices help us? • How am I connected? • How are computer connected? • What does our school network look like? Coding week	• Introduction to scratch • Programming sprites • Sequences • Ordering commands • Looking good • Making an instrument	• Words and pictures • Can you edit it? • Great template • Can you add content? • Lay it out • Why desktop publishing?
Key Vocabulary		
digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets	Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, run the code, order, note, chord, algorithm, bug, debug, code.	text, images, advantages, disadvantages, communicate, font, style, landscape, portrait, orientation, placeholder, template, layout, content, desktop publishing, copy, paste, purpose, benefits.

Autumn 2	Spring 2	Summer 2
Online Safety and Digital Literacy		
Online Bullying – 1 activity *(Deliver during Anti-Bullying Week)* I can describe appropriate ways to behave towards other people online and why this is important. https://projectevolve.co.uk/toolkit/resources/years/year-three/online-bullying/ **Online Relationships – 1 activity** • I can explain what it means to 'know someone' online and why this might be different from knowing someone offline. https://projectevolve.co.uk/toolkit/resources/years/year-three/online-relationships/	**Health, Well-being and Lifestyle – 1 activity** • I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites). https://projectevolve.co.uk/toolkit/resources/years/year-three/health-well-being-and-lifestyle/	**Privacy and Security – 2 activities** • I can describe simple strategies for creating and keeping passwords private. • I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult. https://projectevolve.co.uk/toolkit/resources/years/year-three/privacy-and-security/ **Copyright and Ownership – 1 activity** • I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause. https://projectevolve.co.uk/toolkit/resources/years/year-three/copyright-and-ownership/
Creating media – stop-frame animation	**Data and information – branching databases**	**Programming – Events and actions in programs**
• Can a picture move? • Frame by frame • What's the story? • Picture perfect • Evaluate and make it great! • Lights, camera, action!	• Yes or no questions • Making groups • Creating a branching database • Structuring a branching database • Using a branching database • Two way of presening information	• Moving a sprite • Maze movement • Drawing lines • Adding features • Debugging movement • Making a project
Key Vocabulary		
animation, flip book, stop frame, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition.	attribute, value, questions, table, objects, branching, database, objects, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree.	motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set up, pen, design, action, debugging, errors, setup, code, test, debug, actions.

Year Four Computing Long Term Plan

Autumn 1	Spring 1	Summer 1
Online Safety and Digital Literacy		
Self-Image and Identity - 2 activities • I can explain how my online identity can be different to my offline identity. • I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them. https://projectevolve.co.uk/toolkit/resources/years/4/self-image-and-identity/	**Online Reputation – 2 activities** • I can describe how to find out information about others by searching online. • I can explain ways that some of the information about anyone online could have been created, copied or shared by others. https://projectevolve.co.uk/toolkit/resources/years/4/online-reputation/	**Managing Online Information – 2 activities** • I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online. • I can explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't. https://projectevolve.co.uk/toolkit/resources/years/4/managing-online-information/
Computing systems and networks – The Internet	**Programming – Repetition in shapes**	**Creating media – Photo editing**
• Connecting networks • What is the internet made of? • Sharing information • What is a website? • Who owns the web? • Can I believe what I read? Coding week	• A screen turtle • Programming letters • Patterns and repeats • Using loops to create shapes • Breaking things down • Creating a program	• Changing digital images • Changing the composition of images • Changing images for different uses • Retouching images • Fake images • Making and evaluating a publication
Key Vocabulary		
internet, network, router, security, switch, server, wireless access point (WAP), website, web page, web address, routing, web browser, World Wide Web, content, links, files, use, download, sharing, ownership, permission, information, accurate, honest, content, adverts	Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure.	image, edit, digital, crop, rotate, undo, save, adjustments, effects, colours, hue, saturation, sepia, vignette, image, retouch, clone, select, combine, made up, real, composite, cut, copy, paste, alter, background, foreground, zoom, undo, font.

Autumn 2	Spring 2	Summer 2
Online Safety and Digital Literacy		
Online Bullying – 1 activity *(Deliver during Anti-Bullying Week)* • I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). https://projectevolve.co.uk/toolkit/resources/years/4/online-bullying/ **Online Relationships – 1 activity** • I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms). https://projectevolve.co.uk/toolkit/resources/years/4/online-relationships/	**Health, Well-being and Lifestyle – 1 activity** • I can identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time. https://projectevolve.co.uk/toolkit/resources/years/4/health-well-being-and-lifestyle/	**Privacy and Security – 2 activities** • I can describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure. • I know what the digital age of consent is and the impact this has on online services asking for consent. https://projectevolve.co.uk/toolkit/resources/years/4/privacy-and-security/ **Copyright and Ownership – 1 activity** • When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. https://projectevolve.co.uk/toolkit/resources/years/4/copyright-and-ownership/
Creating media – Audio production	**Data and information – data logging**	**Programming – repetition in games**
• Digital recording • Recording sounds • Creating a podcast • Editing digital recordings • Combining audio • Evaluating podcasts	• Answering questions • Data collection • Logging • Analysing data • Data for answers • Answering my questions	• Using loops to create shapes • Different loops • Animate your name • Modifying a game • Designing a game • Creating our games
Key Vocabulary		
audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, playback, selection, load, save, export, MP3, evaluate, feedback.	data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion.	Scratch, programming, sprite, blocks, code, loop, repeat, value, infinite loop, count-controlled loop, costume, repetition, forever, animate, event block, duplicate, modify, design, algorithm, debug, refine, evaluate.

Year Five Computing Long Term Plan

Autumn 1	Spring 1	Summer 1
Online Safety and Digital Literacy		
Self-Image and Identity - 2 activities • I can explain how identity online can be copied, modified or altered. • I can demonstrate how to make responsible choices about having an online identity, depending on context. https://projectevolve.co.uk/toolkit/resources/years/5/self-image-and-identity/	**Online Reputation – 2 activities** • I can search for information about an individual online and summarise the information found. • I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect https://projectevolve.co.uk/toolkit/resources/years/5/online-reputation/	**Managing Online Information – 2 activities** • I can explain the benefits and limitations of using different types of search technologies e.g. voice-activation search engine. I can explain how some technology can limit the information I am presented with. • I can describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, influencers). https://projectevolve.co.uk/toolkit/resources/years/5/managing-online-information/
Computing systems and networks – systems and searching	**Programming – Selection in physical computing**	**Creating media – introduction to vector graphics**
• Systems • Computing and systems and us • Searching the web • Selecting search results • How search results are ranked • How are searches influenced Coding week	• Connecting crumble • Combining output components • Controlling with conditions • Starting with selection • Drawing designs • Writing and testing algorithms	• The drawing tools • Creating images • Making effective drawings • Layers and objects • Manipulating objects • Create a vector drawing
Key Vocabulary		
system, connection, digital, input, process, storage, output, search, search engine, refine, index, bot, ordering, links, algorithm, search engine Optimization (SEO), web crawler, content creator, selection, ranking.	microcontroller, USB, components, connection, infinite loop, output component, motor, repetition, count-controlled loop, Crumble controller, switch, LED, Sparkle, crocodile clips, connect, battery box, program, condition, Input, output, selection, action, debug, circuit, power, cell, buzzer	vector, drawing tools, object, toolbar, vector Drawing, move, resize, colour, rotate, duplicate/copy, zoom, select, align, modify, layers, order, copy, paste, group, ungroup, reuse, reflection

Autumn 2	Spring 2	Summer 2
Online Safety and Digital Literacy		
Online Bullying – 1 activity *(Deliver during Anti-Bullying Week)* I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences. https://projectevolve.co.uk/toolkit/resources/years/5/online-bullying/ **Online Relationships – 1 activity** • I can describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities or social media groups). https://projectevolve.co.uk/toolkit/resources/years/5/online-relationships/	**Health, Well-being and Lifestyle – 1 activity** • I can explain how and why some apps and games may request or take payment for additional content (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before purchasing. https://projectevolve.co.uk/toolkit/resources/years/5/health-well-being-and-lifestyle/	**Privacy and Security – 2 activities** • I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. https://projectevolve.co.uk/toolkit/resources/years/5/privacy-and-security/ **Copyright and Ownership – 1 activity** • I can give examples of content that is permitted to be reused and know how this content can be found online. https://projectevolve.co.uk/toolkit/resources/years/5/copyright-and-ownership/
Creating media – Video production	**Data and information – Flat-file databases**	**Programming – Selection in quizzes**
• What is video? • Filming techniques • Using a storyboard • Planning a video • Importing and editing video • Video evalution	• Creating a paper-based database • Computer databases • Using a database • Using search tools • Comparing data visually • Databases in real life	• Exploring conditions • Selecting outcomes • Asking questions • Planning a quiz • Testing a quiz • Evaluating a quiz
Key Vocabulary		
video, audio, camera, talking head, panning, close up, video camera, microphone, lens, mid-range, long shot, moving subject, side by side, angle (high, low, normal), static, zoom, pan, tilt, storyboard, filming, review, import, split, trim, clip, edit, reshoot, delete, reorder, export, evaluate, share.	database, data, information, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation.	Selection, condition, true, false, count-controlled loop, outcomes, conditional statement, algorithm, program, debug, question, answer, task, design, input, implement, test, run, setup, operator

Year Six Computing Long Term Plan

Autumn 1	Spring 1	Summer 1
Online Safety and Digital Literacy		
Self-Image and Identity - 2 activities • I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online. • I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline. https://projectevolve.co.uk/toolkit/resources/years/6/self-image-and-identity/	**Online Reputation – 2 activities** • I can explain the ways in which anyone can develop a positive online reputation. • I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity. https://projectevolve.co.uk/toolkit/resources/years/6/online-reputation/	**Managing Online Information – 2 activities** • I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and 'ad targeting' and targeting for fake news). • I can explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this. https://projectevolve.co.uk/toolkit/resources/years/6/managing-online-information/
Computing systems and networks – communication and collaboration	**Programming – Variables in games**	**Creating media – 3D modelling**
• Internet addresses • Data packets • Working together • Shared working • How we communicate • Communicating responsibly Coding week	• Introducing variables • Variables in programming • Improving a game • Designing a game • Design to code • Improving and sharing	• Introduction to 3D modelling • Modifying 3D objects • Make your own name badge • Making a desk tidy • Planning a 3D model • Make your own 3D model
Key Vocabulary		
communication, protocol, data, address, Internet Protocol (IP), Domain Name Server (DNS), packet, header, data payload, chat, explore, slide deck, reuse, remix, collaboration, internet, public, private, oneway, two-way, one-to-one, one-to-many.	variable, change, name, value, set, design, event, algorithm, code, task, artwork, program, project, code, test, debug, improve, evaluate, share, assign, declare	TinkerCAD, 2D, 3D, shapes, select, move, perspective, view, handles, resize, lift, lower, recolour, rotate, duplicate, group, cylinder, cube, cuboid, sphere, cone, prism, pyramid, placeholder, hollow, choose, combine, construct, evaluate, modify.

Autumn 2	Spring 2	Summer 2
Online Safety and Digital Literacy		
Online Bullying – 1 activity *(Deliver during Anti-Bullying Week)* I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me. https://projectevolve.co.uk/toolkit/resources/years/6/online-bullying/ **Online Relationships – 1 activity** • I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this. https://projectevolve.co.uk/toolkit/resources/years/6/online-relationships/	**Health, Well-being and Lifestyle – 1 activity** • I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. https://projectevolve.co.uk/toolkit/resources/years/6/health-well-being-and-lifestyle/	**Privacy and Security – 2 activities** • I can describe how and why people should keep their software and apps up to date, e.g. auto updates. • I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing). https://projectevolve.co.uk/toolkit/resources/years/6/privacy-and-security/ **Copyright and Ownership – 1 activity** • I can demonstrate the use of search tools to find and access online content which can be reused by others. https://projectevolve.co.uk/toolkit/resources/years/6/copyright-and-ownership/
Creating media – Web page creation	**Data and information – introduction to Spreadsheets**	**Programming – Sensing movement**
• What makes a good website? • How would you layout your web page? • Copyright or copywrong? • How does it look? • Follow the breadcrumbs • Think before you link!	• What is a spreadsheet? • Modifying spreadsheets • What's the formula? • Calculate and duplicate • Event planning • Presenting data	• The micro:bit • Go with the flow • Sensing inputs • Finding your way • Designing a step counter • Making a step counter
Key Vocabulary		
website, web page, browser, media, Hypertext Markup Language (HTML), logo, layout, header, media, purpose, copyright, fair use, home page, preview, evaluate, device, Google Sites, breadcrumb trail, navigation, hyperlink, subpage, evaluate, implication, external link, embed.	data, collecting, table, structure, spreadsheet, cell, cell reference, data item, format, formula, calculation, spreadsheet, input, output, operation, range, duplicate, sigma, propose, question, data set, organised, chart, evaluate, results, sum, comparison, software, tools.	Micro:bit, MakeCode, input, process, output, flashing, USB, trace, selection, condition, if then else, variable, random, sensing, accelerometer, value, compass, direction, navigation, design, task, algorithm, step counter, plan, create, code, test, debug.