

Digital Literacy (Mechanics, searching/selecting, information and e-safety).	Information Technology (Digital artefacts and computing contexts)	Computer Science (Algorithms and programming, data and systems).
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	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS Cycle A	Internet Safety		Programming - Instructions		Computer Skills	
	Using technology safely, sorting good and wrong choices, recognising when they do and do not need help.		Following instructions as part of practical games and activities. Debugging instructions when they go wrong.		Locating keys on a keyboard, logging in and out of simple games, using technology for different purposes, using buttons for playback, creating digital art.	
EYFS Cycle B	Internet Safety		Data Handling		Computer Skills	
	Using technology safely, sorting good and wrong choices, recognising when they do and do not need help.		Sorting and categorising objects in play, using branch databases and pictograms.		Locating keys on a keyboard, logging in and out of simple games, using technology for different purposes, using buttons for playback, creating digital art.	
Y1/2 Cycle A	Internet Safety	Computer Systems and Networks – Technology Around Us	Making Music	Programming A – Robot Algorithms (Beebots)	Digital Painting	Programming B – An introduction to quizzes (Scratch Junior)
	Digi Duck – passwords, personal information, trusted adults.	Identifying parts of computers and using technology responsibly.	Experimenting with sounds and patterns on computers.	Instructions as a sequence, introduction to designing an algorithm.	Using freehand tools and careful choices with digital pictures.	Creating a program using designs, knowing a sequence of commands has a start and an outcome.
Y1/2 Cycle B	Internet Safety	Computer Systems and Networks - IT Around Us	Word Processing – Creating Media Digital Writing	Introduction to Animation (Scratch Junior)	Data and Information - Pictograms	Digital Photographs
	Digi Duck – Online/offline, real and imaginary experiences.	Identifying information technology in school and beyond school.	Adding and removing text, making careful choices when changing text.	Choosing commands for a purpose, designing parts of a project.	Creating pictograms and presenting information using a computer.	Using iPads to take photographs and decide how they can be improved.
Y3/4 Cycle A	Internet Safety	Online Communication	Algorithms using Scratch Online Programming A - Sequencing Sounds	Computer Systems and Networks	Animation	Branching Databases
	Hector's World – When to share personal information and when not to, trustworthy and untrustworthy sources of information.	Understanding ways we communicate online and how to respond with different online situations.	Explore a new programming environment and how commands create an outcome.	Understand how the internet can provide multiple services such as the World Wide Web	Plan, create and review their own animation.	Classifying objects using yes/no questions. To their own create a branching database.
Y3/4 Cycle B	Internet Safety	Word Processing	Algorithms using Scratch Online Programming B - Events and actions in programs	Data Loggers	Audio Editing	Drawing and Desktop Publishing
	Captain Kara and the SMART Crew. Introduction to cyberbullying and age ratings.	Formatting tools, spell check, tables and hyperlinks.	Creating a program to move a sprite in different directions.	Using Data Loggers to collect data automatically and to answer questions.	Creating a podcast project.	Recognising effective layouts, with re-sizing and grouping items.
Y5/6 Cycle A	Internet Safety	Word Processing	Programming with Micro Bits	Selection using Scratch Quizzes	PowerPoint	Film Making
	Appropriate and inappropriate uses of the internet, strong passwords and reporting concerns of cyberbullying.	Cut, copy and paste, headers, footers, page numbers etc.	Using variables, inputs, outputs and logical reasoning.	Creating programs which use selection, using conditional statements.	Using action buttons for images and sounds, discussing and evaluating their PowerPoints.	Planning a script for an interviewee, creating a film using an iPad.
Y5/6 Cycle B	Internet Safety	Web Page Creation	Computing Systems and Networks	Excel – Introduction to spreadsheets	Programming – Variables with games in Scratch	Programming – Sensing using the Micro Bit (Combines selection, repetition, sequencing and variables).
	Acceptable and unacceptable behaviours, consent, the media, evaluating websites for reliability.	Creating a web page for a purpose, understanding copyright.	Search engines, information is selected and ranked.	Formulas, cells, rows, columns, calculating data.	Using variables and understanding why they are used.	Design a project using inputs and outputs.

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Information Technology (Digital artefacts and computing contexts)

Computer Science
(Algorithms and programming, data and systems).

		<p style="text-align: center;">Aim: For our pupils to: Understand the fundamental principles and concepts of information and technology. (Foundations – Digital living skills) Know how to apply their skills to create programs, systems and a range of content. (Applications – Digital working skills) Be digitally literate, creative and active participants in a digital world. (Implications – Digital specialism)</p>					
		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		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.	To recognise common uses of information technology beyond school. RHE- know that for most people the internet is an integral part of life and has many benefits.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content Links to music	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 KS1 Art and Design Pupils should be taught: To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form, and space About the work of a range of artists, craft makers, and designers, describing the differences and similarities between different practices and disciplines and making links to their own work	Understand what algorithms are; how they are implemented as programs on digital devices; and those 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
Cycle A		<p style="text-align: center;">Internet Safety</p> Role-play how to talk kindly and politely to friends online and in the real world, and how to comment kindly on people's work. Role-play deciding that you have spent too much time online. Suggest ways that you can remind yourself to change to other kinds of activities.	<p style="text-align: center;">Computer systems and networks - Technology Around Us</p> RHE- know that for most people the internet is an integral part of life and has many benefits. https://www.how-to-type.com/touch-typing-lessons/how-to-type-home-keys/	<p style="text-align: center;">Making Music</p> https://teachcomputing.org/curriculum/key-stage-1/creating-media-making-music	<p style="text-align: center;">Programming A - Robot Algorithms</p> https://teachcomputing.org/curriculum/key-stage-1/programming-a-robot-algorithms BeeBots	<p style="text-align: center;">Digital Painting</p> Microsoft Paint or the online app Paintz https://paintz.app https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-painting	<p style="text-align: center;">Programming B – An introduction to quizzes</p> https://teachcomputing.org/curriculum/key-stage-1/programming-b-an-introduction-to-quizzes Scratch Junior
	Year 1/2	<p style="text-align: center;">Read Digiduck saves the day</p> https://www.childnet.com/resources/digiduck-stories/digiduck-saves-the-day/ 1. Y1 To use a simple password and explain why we use passwords Y2 To remember a simple password and explain why we use passwords 2. To recognise examples of personal information e.g., name, image, home address etc. To understand that although parents and teachers can help you log on, personal information should never be shared with anyone else. 3. To know who to tell if concerned about content or contact online 4. To know there might be pop ups / in apps purchasing and what to do if this happens. 5. To recognise that digital content belongs to the person who created it.	1. To identify technology. 2. To identify a computer and its main parts, including switching it on and logging on with support. 3. To use a mouse in different ways. 4. To use a keyboard to type on a computer, with support. 5. To use the keyboard to edit text. 6. To create rules for using technology responsibly. Key Skills Y1: Type my name and delete letters with support. Key Skills Y2: Logging on using pictorial support e.g., log in details such as usernames and passwords on paper. Type my full name and delete letters.	1. To say how music can make us feel. 2. To identify that there are patterns in music. 3. To experiment with sound using a computer. 4. To use a computer to create a musical pattern. 5. To create music for a purpose. 6. To review and refine our computer work.	1. To describe a series of instructions as a sequence. 2. To explain what happens when we change the order of instructions. 3. To use logical reasoning to predict the outcome of a program. 4. To explain that programming projects can have code and artwork. 5. To design an algorithm, 6. To create and debug a program that I have written.	1. To describe what freehand tools do, 2. To use the shape tool and line tools. 3. To make careful choices when painting a digital picture. 4. To make appropriate colour choices. 5. To make changes where required. 6. To say which tools were helpful and why. Y1 Learners should now be familiar with: How to switch their device on Username- with support from an adult Password- with support from an adult Y2 Learners should now be familiar with: How to switch their device on Username- with pictorial support Password – with pictorial support e.g., using their own log in cards.	1. To explain that a sequence of commands has a start. 2. To explain that a sequence of commands has an outcome. 3. To create a program using a given design. 4. To change a given design. 5. To create a program using my own design. 6. To decide how my project can be improved.
	Vocab	Pop Up – An advert which pops up on your screen. In apps purchasing – Something that pops up on an app which costs money. Trusted adult – Someone you can tell if you are upset about something online/offline. Personal information – Full name, home address, school address, date of birth, passwords, images of ourselves etc. Password - Using a secret word to log in online. Public – Everyone can see it. Private – You can choose who sees it. Content – Things that we see online. Contact – Someone talks to you.	Technology is something that helps us in different ways (doesn't have to be electronic). Manufactured – made by people. Computer – A device that works with information – numbers, pictures, sounds etc. Information technology (IT) – A computer or something that is made to work with a computer, e.g., laptop, table, scanner, barcode, printer, smart speaker.	Patterns – Something that repeats. Purpose - Why we do it. Review – To think about it and make changes to it.	BeeBots Instructions – How to do something Algorithm - A set of instructions for a computer, split into little steps. Create – To make something. Debug – Fixing a sequence in a computer program.	Undo – To cancel / go back. Eraser - To rub out. Shape tool – To create shapes. Fill tool – To fill in a colour.	Commands – The order the computer needs to follow. Program/Sequence – A set of step-by-step instructions to make a computer do a task. Outcome – What happens at the end. Design – A plan.

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		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. RHE: that the same principles apply to online relationships as face to face, including the importance of respect for others online including when we are anonymous	To recognise common uses of information technology beyond school. Use technology purposefully to create, organise, store, manipulate, and retrieve digital content 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	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content Use technology safely and respectfully, keeping personal information private	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 Maths Building on Year 1 number and place value: Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: 'equal to', 'more than', 'less than' ('fewer'), 'most', 'least' Year 2 interpret and construct simple pictograms, tally charts, block diagrams and simple tables ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ask and answer questions about totalling and comparing categorical data	To recognise common uses of information technology beyond school. Use technology purposefully to create, organise, store, manipulate, and retrieve digital content 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
		Internet Safety Role-play how to talk kindly and politely to friends online and in the real world, and how to comment kindly on people's work. Role-play deciding that you have spent too much time online. Suggest ways that you can remind yourself to change to other kinds of activities. Read Digiduck's big decision https://www.chiknet.com/resources/digiduck-stories/digiducks-big-decision 1. To know that we treat people the same online as we do offline. 2. To identify who they are sharing their learning with online and recognise the difference between real and imaginary online experiences. 3. To recognise that spending a lot of time in front of a screen can be unhealthy. 4. To know that some information found online may not be true. 5. To identify rules for acceptable use of technology in school.	Computer systems and networks - IT around us https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-it-around-us	Word Processing – Creating Media Digital Writing https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-writing	Introduction to Animation https://teachcomputing.org/curriculum/key-stage-1/programming-b-introduction-to-animation Scratch Junior	Data and Information – Pictograms https://teachcomputing.org/curriculum/key-stage-1/data-and-information-pictograms	Digital Photographs https://teachcomputing.org/curriculum/key-stage-1/creating-media-digital-photography
Cycle B	Year 1/2	1. To know that we treat people the same online as we do offline. 2. To identify who they are sharing their learning with online and recognise the difference between real and imaginary online experiences. 3. To recognise that spending a lot of time in front of a screen can be unhealthy. 4. To know that some information found online may not be true. 5. To identify rules for acceptable use of technology in school.	1. To recognise the uses and features of information technology 2. To identify uses of information technology in the school 3. To identify information technology beyond school 4. To explain how information technology helps us 5. To explain how to use information technology safely 6. To recognise that choices are made when using information technology	Y1 Supported / Y2 Independent 1. To use a computer to write 2. To add and remove text on a computer 3. To identify that the look of text can be changed on a computer 4. To make careful choices when changing text 5. To explain why I used the tools that I chose 6. To compare typing on a computer to writing on paper Key Skills Y1: Type my name and delete letters with support. Key Skills Y2: Logging on using pictorial support e.g., log in details such as usernames and passwords on paper. Type my full name and delete letters.	1. To choose a command for a given purpose. 2. To show that a series of commands can be joined together 3. To identify the effect of changing a value 4. To explain that each sprite has its own instructions 5. To design the parts of a project 6. To use my algorithm to create a program	1. To recognise that we can count and compare objects using tally charts. 2. To recognise that objects can be represented as pictures. 3. To create a pictogram. 4. To select objects by attribute and make comparisons. 5. To recognise that people can be described by attributes. 6. To explain that we can present information using a computer.	1. To use a digital device to take a photograph. 2. To make choices when taking a photograph. 3. To describe what makes a good photograph. 4. To decide how photographs can be improved. 5. To use tools to change an image. 6. To recognise that photos can be changed.
	Vocab	Online – On the internet. Offline – Not on the internet. Personal information – Examples include: Full name, home address, school address, date of birth, passwords, images of ourselves etc. Acceptable use – Using technology safely.	Computer – A machine that usually has a screen, keyboard and a mouse. Information technology – Anything that is a computer or works with a computer.	Remove – Take something away. Edit – To change. Text – Words. Insert – To put one thing into another e.g. a picture or a video onto a screen. Image – A picture. Document – A piece of work saved on a computer.	Commands – The order the computer needs to follow. Value – The number on the block. Sprite – A character on Scratch. Algorithm – A set of instructions for a computer, split into little steps.	Pictogram – A chart that uses pictures to show data. Data – Information that we can collect, e.g., everyone's favourite colour or animal. Object – Something that can be seen or touched.	Photograph – A picture made using a camera. Improve – To make something better.

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		Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. RHE: that people sometimes behave differently online, including by pretending to be someone they are not.	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, by investigating ways of communicating with others online. Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	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	RHE: how to be a discerning consumer of information online, including understanding that information, including that from search engines, is ranked, selected, and targeted. 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, by investigating ways of communicating with others online.	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.	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.
		Internet Safety Hector's World Resources – on Teams	Online Communication Twinkl	Algorithms using Scratch Online Programming A - Sequencing Sounds Teach Computing https://teachcomputing.org/curriculum/key-stage-2/programming-a-sequence-in-music	Computer Systems and Networks Teach Computing https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-the-internet	Animation https://teachcomputing.org/curriculum/key-stage-2/creating-media-animation https://fflpanim.com/ Use this website.	Branching Databases Teach Computing https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases
Cycle A	Year 3/4	<ol style="list-style-type: none"> To recognise when to share personal information and when not to. <i>Episode 2 – Welcome to the Carnival</i> To understand that any personal information put online can be seen and used by others (scammers etc). <i>Episode 3 - It's a serious game</i> To recognise that some people lie about who they are online (RHE Link) & identify ways adults can help us in the online environment. To sort websites which can be trustworthy or untrustworthy sources of information. To recognise that digital content belongs to the person who first created it, but we can give permission for others to use it. To recognise the effect their writing or images might have on others. <p>Y3 To explain why we need to keep our passwords safe.</p> <p>Y4 To remember and use an individual password.</p>	<ol style="list-style-type: none"> To name means of online communication. To research the types of online communication used. To explain who will be able to read my communication. To know what to do when I receive communication that makes me feel uncomfortable. To explain why I must be kind and encouraging in my online communication. 	<ol style="list-style-type: none"> To explore a new programming environment. To identify those commands create an outcome. To explain that a program has a start. To recognise that a sequence of commands can have an order. To change the appearance of my project. To create a program from a task description. 	<ol style="list-style-type: none"> To describe how networks physically connect to other computers. To recognise how networked devices make up the internet. To outline how websites can be shared via the World Wide Web (WWW) To describe how content can be added and accessed on the World Wide Web To recognise how the content of the WWW is created by people To evaluate the consequences of unreliable content. 	<ol style="list-style-type: none"> To explain that animation is a sequence of drawings or photographs. To relate animated movement with a sequence of images. To plan an animation. To identify the need to work consistently and carefully. To review and improve an animation. To evaluate the impact of adding other media to an animation. 	<ol style="list-style-type: none"> To create questions with yes/no answers. To identify the attributes needed to collect data about an object. To create a branching database. To explain why it is helpful for a database to be well structured. To plan the structure of a branching database. To independently create an identification tool.
	Vocab	Model choosing a unique password Discuss good choices when playing games, e.g., content and screen time . Keep adults informed if you see something negative/ if you are bullied . Cyberbullying – Bullying which takes place online. Digital Footprint – A trail of information online that is left behind.	Online communication: Refers to the several ways (such as e-mail, social networking sites, etc) in which individuals and computers can communicate with each other. Internet - A large system of connected computers. Attachment – An additional file sent with an email. Social media - Facebook Snapchat Twitter Tik Tok Instagram Email – Messages from one computer to another.	Also covered in Cycle B Stage – The background of the game. Script - An ordered list of instructions, like a recipe. Another word for algorithm. Motion blocks – Making an object move. Bugs – Errors in code. They are a normal part of coding. Revisit from Y12 and 3/4 Cycle B Debugging - The process of finding and correcting errors in a program. Sprite – A character or object in the game.	World wide web- (WWW) A huge connection of web sites. Reliable – Trustworthy and checked against other sources. Communicate – To share information. Collaborate – To work together.	Onion skinning: A technique used in animation where frames are layered transparently. Sequence: A particular order in which things follow each other. Stop motion: A technique where the camera is repeatedly stopped and started. Analyse: To examine something in detail. Transparent: Allows light to pass through so objects behind can be seen	Hyperlink – A link which takes you to another webpage. Branching database – A way of classifying objects. Attributes – A feature of something e.g., a colour or how many legs it has. Structure – The order. Throughout this unit, learners will use the online database tool I2data Branch. You should be familiar with using this tool. Support with navigating I2data Branch can be found at www.i2e.com/help/videos/datags3 .

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		<p>Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Significant Individual: Tim Berners-Lee</p> <p>RHE: Why social media, some computer games and online gaming, for example are age restricted.</p>	<p>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.</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs, work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	<p>Use sequence, selection, and repetition in programs, work with variables and various forms of input and output</p> <p>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</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>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</p> <p>Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>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</p>
		<p>Internet Safety Captain Kara and the SMART Crew</p>	<p>Word Processing Twinkl https://www.twinkl.co.uk/resource/t24-130-computing-word-processing-year-4-planning-overview</p>	<p>Algorithms using Scratch Online Teach Computing – Programming B Events and actions in programs https://teachcomputing.org/curriculum/key-stage-2/programming-b-repetition-in-games</p>	<p>Data Loggers Teach Computing https://teachcomputing.org/curriculum/key-stage-2/data-and-information-data-logging</p>	<p>Audio Editing Teach Computing https://teachcomputing.org/curriculum/key-stage-2/creating-media-audio-editing</p>	<p>Drawing and Desktop Publishing Twinkl Unit</p>
Cycle B	Year 3 / 4	<ol style="list-style-type: none"> To understand the need for the SMART rules to keep them safe when exchanging ideas online. To understand that an adult needs to know what they are doing online and understand how to report concerns, including cyberbullying. To be aware that games and films have age ratings, and how to make healthy choices when using IT. Use the Digital 5 A Day Resources here – on Teams https://www.childrenscommissioner.gov.uk/digital/5-a-day/ - Youtuber Simply Luke explains. To recognise the benefits and risks of different apps and websites. To recognise the need to protect their devices from viruses. To understand that the information we put online leaves a digital footprint. 	<ol style="list-style-type: none"> To format images for a purpose. To use formatting tools to create an effective layout. To use the spell check tool. To insert and format a table in a word processing document. To change a page layout for a purpose. To create hyperlinks within a word document. 	<ol style="list-style-type: none"> To explain how a sprite moves in an existing project. To create a program to move a sprite in four directions. To adapt a program to a new context. To develop my program by adding features. To identify and fix bugs in a program. To design and create a maze-based challenge. 	<ol style="list-style-type: none"> To explain that data gathered over time can be used to answer questions. To use a digital device to collect data automatically. To explain that a data logger collects 'data points' from sensors over time. To recognise how a computer can help us analyse data. To identify the data needed to answer questions. <p>Links to Science</p> <p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>They should learn how to use new equipment, such as data loggers, appropriately. They should collect data from their own observations and measurements, using notes, simple tables, and standard units, and help to make decisions about how to record and analyse this data.</p>	<ol style="list-style-type: none"> To identify that sound can be recorded. To explain that audio recordings can be edited. To recognise the different parts of creating a podcast project. To apply audio editing skills independently. To combine audio to enhance my podcast project. To evaluate the effective use of audio. 	<ol style="list-style-type: none"> To draw with different shapes and lines. To order and group objects. To manipulate shapes and lines. To recognise effective layout. To combine text and images. To layout objects effectively.
	Vocab	<p>SMART Rules.</p> <p>Discuss actions which could be taken if upset e.g., report/block buttons.</p> <p>Discuss communicating safely and respectfully.</p> <p>Cyberbullying – Bullying which takes place online.</p> <p>Digital Footprint – A trail of information online that is left behind.</p> <p>Viruses – A computer program which causes damage.</p> <p>Teacher to check online for the most up to date age ratings.</p>	<p>Cell – Each little box in a table.</p> <p>Rows – Cells which go from right to left.</p> <p>Columns – Cells which go from top to bottom.</p> <p>Spell-check – The computer checks the spelling for you.</p> <p>Page layout – Where everything is on the page.</p> <p>Hyperlink – A link which takes you to another webpage.</p>	<p>Also covered in Cycle A</p> <p>Stage – The background of the game.</p> <p>Script – An ordered list of instructions, like a recipe. Another word for algorithm.</p> <p>Motion blocks – Making an object move.</p> <p>Bugs – Errors in code. They are a normal part of coding.</p> <p>Revisit from Y12 and 3/4 Cycle A</p> <p>Debugging – The process of finding and correcting errors in a program.</p> <p>Sprite – A character or object in the game.</p>	<p>Need a TTS Data Logger or Google Science Journal using iPads or Chromebooks.</p> <p>Data – Information that is collected for a reason.</p> <p>Sensors – What computers use to capture data.</p> <p>Review – To think about it and make changes to it.</p> <p>Analyse – Thinking about what the data tell us.</p>	<p>Need microphones and speakers/headphones and Audacity to produce podcasts on Chromebooks.</p> <p>Record – Sound that is saved.</p> <p>Edit – To make changes.</p> <p>Enhance – To improve the quality.</p> <p>Evaluate – Deciding if something is your best or how it could be improved.</p> <p>Copyright – The legal right of your own work.</p>	<p>Google Draw / Paint online to create a leaflet/brochure to link to any curriculum area.</p> <p>Textbox – Creating a box to include text.</p> <p>Resize – Change the size.</p> <p>Group – Joining objects together.</p> <p>Aspect Ratio – The correct size of an object, this means the picture doesn't get squashed horizontally or vertically.</p>

		<p style="text-align: center;">Aim: For our pupils to: Understand the fundamental principles and concepts of information and technology. (Foundations – Digital living skills) Know how to apply their skills to create programs, systems and a range of content. (Applications – Digital working skills) Be digitally literate, creative and active participants in a digital world, (Implications – Digital specialisms)</p>					
		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. RHE: the rules & principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them Where & how to report concerns & get support with issues online Significant Individual: Mejinda and Bill Gates Cyberbullying video clip for teachers http://www.playbackschools.org.uk/programme/2012/combating-cyberbullying	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 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. https://www.bbc.co.uk/bitesize/topics/z12f9i6/articles/z3c6tfr Could be used as a starter for lessons – Touch Typing is a great skill for many careers.	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 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	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 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	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. https://www.bbc.co.uk/bitesize/topics/z12f9i6/articles/z3c6tfr Could be used as a starter for lessons – Touch Typing is a great skill for many careers.	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.
		Internet Safety Kids SMART website Explore and discuss the website. Remind pupils of the SMART rules for staying safe online that they covered in Year 3/4.	Word Processing Cross curricular with English/History/Geography/Science etc. This unit could be used for children to type up and publish their best piece of work. They could add images from iPads or online. This is support them with typing skills as well.	Barefoot Computing Changing this unit to Micro Bits We can sequence codes (put them in order) within the Micro Bits editor. We can design and code images (give instructions to computers) using the Micro Bit LEDs.	Teach Computing Y5 Programming Selection using Scratch quizzes https://teachcomputing.org/curriculum/key-stage-2/programming-b-selection-in-quizzes	PowerPoint	Film Making (Twinkl 6)
Cycle A	Year 5 / 6	<ol style="list-style-type: none"> To explain what makes a strong password and why this is important at school and in the wider world. To identify appropriate and inappropriate uses of the internet, including excessive use. Review from Y34 Use the Digital 5 A Day Resources here – on Teams https://www.childrenscommissioner.gov.uk/digital/5-a-day/ - Youtuber Simply Luke explains. To understand the risks and rewards of using the internet and how to protect themselves and the devices they use. To know how to stay safe when communicating online and what to do if they don't feel safe. To explore dealing with cyberbullying safely. To understand the need to respect the rights of other users and understand their own responsibility for information that is shared and how it may impact on others. 	<ol style="list-style-type: none"> To be able to format text by changing fonts, styles, sizes, and colours. To adjust line spacing. To insert and format WordArt. To insert and format clip art or a picture file. To draw and format shapes. To cut, copy and paste a selection. To insert headers, footers, and page numbers. Further challenge – To format text into columns and rows, adjust page margins and spell check a document.	We can sequence codes (put them in order) within the Micro Bits editor. We can design and code images (give instructions to computers) using the Micro Bit LEDs.	<ol style="list-style-type: none"> To explain how selection is used in computer programs. To relate that a conditional statement connects a condition to an outcome. To explain how selection directs the flow of a program. To design a program which uses selection. To create a program which uses selection. To evaluate my program further. 	<ol style="list-style-type: none"> To use hyperlinks or action buttons in multimedia software or webpages To create a page of sounds which are activated by appropriately named and positioned action buttons To discuss and evaluate their presentations and outcomes give reasons for the chosen styles and techniques To consider comments made by peers and audience amend and improve their work. 	<ol style="list-style-type: none"> To plan and write a script using appropriate software. To search for relevant information using appropriate websites. Use a digital video camera (or similar device) to record. Plan suitable questions to ask an interviewee. Import video files into video editing software. Further challenge - Speak clearly into the camera when being recorded. Plan additional elements such as locations and props.
	Vocab	Responsibility – Doing the things you are supposed to do. Excessive use - Being online too much, and not being interested in offline activities. Strong passwords – A unique word/phrase that a hacker cannot easily guess e.g., not using personal information. Discuss ways to manage passwords and strategies to add extra security such as two-factor authentication. Discuss capturing bullying content as evidence.	Cut – To remove an item. Copy – Making another one which is the same. Paste – To insert an item in a new location. Adjust - To change something so it fits. Headers - A part of a document at the top which will repeat on every page. Footer - A part of a document at the bottom which will repeat on every page. Revisit from Y34 and Cycle B 5/6 Rows – Cells which go from right to left. Columns – Cells which go from top to bottom.	Variables are used in computer programs to store data. For example, a score on a game. Algorithm – A set of instructions for a computer, split into little steps. Inputs - Buttons and sensors take information from the outside world into the micro bit for processing. Outputs – Something that sends information out from a computer, e.g., the LEDs on the Micro Bits. Logical reasoning – ‘Sensible thinking’ which helps to explain how to solve problems with computer programs.	Selection - Part of a program where if a condition is met, then a set of commands is run. Conditions – A statement that can be true or false.	Multimedia software – Software that can play or record audio or video. Webpage – A document on the World Wide Web. Revisit from Y34 Hyperlink – A link which takes you to another webpage.	Script Software Appropriate Interviewee Import Editing

Digital Literacy (Mechanics, searching/selecting, information and e-safety).

Information Technology (Digital artefacts and computing contexts)

Computer Science
(Algorithms and programming, data and systems).

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		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		<p>use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>RHE: How to critically consider their online friendships & sources of information including awareness of the risks associated with people they have never met (including consenting and sending of specific photos)</p> <p>RHE: That the internet can be a negative place where online abuse, trolling, bullying and harassment can take place which can have a negative effect on mental health</p> <p style="text-align: center;">Significant individual: Gladys West</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>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.</p> <p>Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour.</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>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</p> <p>RHE: Know about the benefits of rationing time spent online, the risks of excessive time & its impact of positive & negative content online & others mental & physical well being</p> <p>How to get advice e.g., family, school & or other sources</p> <p>RHE: How information & data is shared & used online</p>	<p>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,</p>	<p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs, work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>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</p>	<p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs, work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>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</p>
		<p style="text-align: center;">Internet Safety</p> <p>Find resources on ThinkUKnow - Online Safety Toolkit for 8-10 year olds.</p> <p style="text-align: center;"><u>Kids SMART website</u></p> <p>Explore and discuss the website. Remind pupils of the SMART rules for staying safe online that they covered in Year 3/4.</p>	<p style="text-align: center;">Teach Computing Web Page Creation</p> <p>https://teachcomputing.org/curriculum/key-stage-2/creating-media-web-page-creation</p> <p>https://www.bbc.co.uk/bitesize/topics/zf2f96/articles/z3c6tfr</p> <p>Could be used as a starter for lessons – Touch Typing is a great skill for many careers.</p>	<p style="text-align: center;">Teach Computing Computing systems and networks</p> <p>https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-sharing-information</p>	<p style="text-align: center;">Teach Computing Excel – Introduction to Spreadsheets</p> <p>https://teachcomputing.org/curriculum/key-stage-2/data-and-information-spreadsheets</p> <p>Links to Maths</p> <p>Number – addition, subtraction, multiplication, and division:</p> <p>Solve problems involving addition, subtraction, multiplication, and division</p> <p>Statistics:</p> <p>Interpret and construct pie charts and line graphs, and use these to solve problems</p> <p>Calculate and interpret the mean as an average</p>	<p style="text-align: center;">Teach Computing Y6 Programming – Variables in games with Scratch</p> <p>https://teachcomputing.org/curriculum/key-stage-2/programming-a-variables-in-games</p>	<p style="text-align: center;">Teach Computing</p> <p>https://teachcomputing.org/curriculum/key-stage-2/programming-b-sensing</p> <p>Y6 Programming Physical Computing– Sensing using the Micro Bit. Combines all 4 programming elements: Sequence and repetition from Y3/4 and selection from Y5/6 Cycle A.</p>
Cycle B	Year 5/6	<ol style="list-style-type: none"> To recognise signs of acceptable/unacceptable behaviour online. To know that we must seek consent from others before sharing material online and how content can still be shared online, even if it is set to private. See <i>RSE Link</i>. To know how to critically consider their online friendships and how to make good choices when presenting themselves online <i>RSE Link</i> To identify signs of manipulative, pressuring or threatening behaviour and how to respond safely. To know how the media plays a powerful role in shaping ideas. To critically evaluate websites for reliability of information and authenticity. 	<ol style="list-style-type: none"> To review existing websites and consider its structure. To plan the features of a web page that suits its purpose To consider the ownership and use of images (copyright) and describe what is meant by the term fair use. To recognise the need to preview pages and suggest/make edits. To outline the need for a navigation path. To recognise the implications of linking to content owned by others. 	<ol style="list-style-type: none"> To explain that computers can be connected together to form systems. To recognise the role of computers systems in our lives. To identify how to use a search engine. To describe how search engines select results. To explain how search engines are ranked. To recognise why the order of results is important and to whom. 	<ol style="list-style-type: none"> To create a data set in a spreadsheet. To build a data set in a spreadsheet. To explain that formulas can be used to produced calculated data. To apply formulas to data. To choose suitable ways to present data. 	<ol style="list-style-type: none"> To define a 'variable' as something that is changeable. To explain why a variable is used in a program. To choose how to improve a game by using variables. To design a project that builds on a given example. To use my design to create a project. To evaluate my project. 	<ol style="list-style-type: none"> To create a program to run on a controllable device. To explain that selection can control the flow of a program. To update a variable with a user input. To use a conditional statement to compare a variable to a value. To design a project that uses inputs and outputs on a controllable device. To develop a program to use inputs and outputs on a controllable device.
	Vocab	<p>Acceptable use / unacceptable use – Behaviour that we expect/do not expect.</p> <p>Consent – Giving permission.</p> <p>Report – To tell the administrator about a problem.</p> <p>Social networks – Websites and apps to interact with others.</p> <p>Reliability – How trustworthy information is.</p>	<p style="text-align: center;">Structure Preview Fair use Implications</p> <p>Revisit Y3/4</p> <p>Copyright - The legal right of your own work.</p>	<p style="text-align: center;">Search engine Communicate</p>	<p>Revisit from Y34 & Cycle A 5/6</p> <p>Rows – Cells which go from right to left.</p> <p>Columns – Cells which go from top to bottom.</p> <p>To use the SUM function.</p> <p>To explain how formulas can be used.</p>	<p>Variable – something that is changeable.</p> <p>Enhance – Improve the quality.</p>	<p>LED Display – shows pictures, words, and numbers.</p> <p>Light sensor – Measures how much light is falling on the Micro Bit. Input and Output pins – connect other devices to the Micro:bit. Processor – the 'brain' of the device which carries out the instructions.</p>

Stay safe online

Remember the 5 SMART rules when using the internet and mobile phones.



S

SAFE: Keep safe by being careful not to give out personal information when you're chatting or posting online. Personal information includes your email address, phone number and password.



M

MEET: Meeting someone you have only been in touch with online can be dangerous. Only do so with your parents' or carers' permission and even then only when they can be present.



A

ACCEPTING: Accepting emails, IM messages, or opening files, pictures or texts from people you don't know or trust can lead to problems – they may contain viruses or nasty messages!



R

RELIABLE: Someone online might lie about who they are, and information on the internet may not be true. Always check information with other websites, books or someone who knows.



T

TELL: Tell your parent, carer or a trusted adult if someone or something makes you feel uncomfortable or worried, or if you or someone you know is being bullied online.



Find out more at Childnet's website ...

www.kidsmart.org.uk