

Computing

Hardware, software and equipment list

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Hardware and software note

Hardware

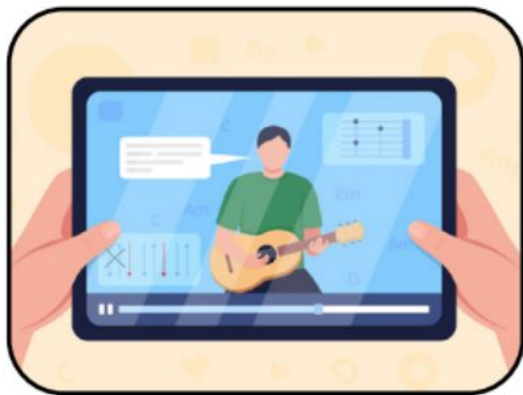
This scheme has been developed to be compatible with **all** relevant hardware options. This includes commonly used devices such as:

- Desktop computers.
- Laptops.
- iPads.
- Android tablets.
- Chromebooks.

Software

The software options listed on the following pages are external websites containing online software - we do not have control over their content. Please check before using any of them with the children.

Software in red requires set-up prior to the lesson and/or teacher and pupil logins.



EYFS (Reception) - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Computing systems and networks: Using a computer	<ul style="list-style-type: none"> • Sketchpad. • Microsoft Paint (optional). 	<ul style="list-style-type: none"> • A computer for each child. • Coloured pencils (per child). • A computer keyboard. 	
Programming 1: All about instructions		<ul style="list-style-type: none"> • Equipment to use as obstacles, such as cones, chairs, ropes, hoops etc. or use chalk to mark a path on the ground outside. • Blindfolds (per pair of pupils). • An obstacle course for each pair of pupils. • A selection of clothes and accessories (oversized/adult sizes work best): hats, scarves, boots, coats, socks, bags etc. • A soft ball or beanbag. • A digital timer (or sand timer). • Handwashing equipment for the adult: a bowl, water, soap and a towel or paper towel. • A smartboard or flip chart to record the children's instructions. • A camera or tablet. • Glue sticks. 	
Computing systems and networks 2: Exploring hardware		<ul style="list-style-type: none"> • Tuff tray. • A selection of disconnected computer hardware: mouse, keyboard, motherboard, USB stick, system fan, hard drive, monitor, computer tower, speakers (you could have multiples of some of the objects). • Tools: screwdrivers, magnifying glasses. • A digital camera, iPad or tablet. 	
Programming 2: Programming Bee-Bots		<ul style="list-style-type: none"> • Bee-Bots or Blue-Bots (or similar product). 	
Data handling: Introduction to data		<ul style="list-style-type: none"> • A collection of loose parts (variation in size, shape, colour and texture). • Boxes or baskets for children to sort and categorise the loose parts into (egg boxes and muffin tins work well). • Tuff tray (optional). • Chalk (for the adult). • Camera (optional). • Envelopes (per child). • Large graph paper (optional). • Glue or Blu-tack. 	

*Not including lesson printables, devices and items commonly found in the classroom e.g.pens, pencils, whiteboards etc.

Year 1 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Computing systems and networks: Improving mouse skills	<ul style="list-style-type: none"> • Sketchpad. 	<ul style="list-style-type: none"> • Mirrors or photography software. 	
Programming 1: Algorithms unplugged		<ul style="list-style-type: none"> • Dressing up clothes and accessories, for example, scarves and hats. • Dice (one per pair of children). • Selection of reading books for sorting. • 2D shapes for drawing around. 	
Skills showcase: Rocket to the moon	<ul style="list-style-type: none"> • Sketchpad. 	<ul style="list-style-type: none"> • Sturdy paper or firm card – two sheets per group. • A copy of the book Moonshot: The Flight of Apollo 11 by Brian Floca – copies can be found at bookstores and/or online. • Card. • Tape. • Cardboard boxes. • Plastic bottles – one per group. • Other materials such as foil, plastic packaging, felt tips, coloured paper, sequins, tissue paper etc. • Trundle wheels or metre sticks. • Foam javelin or your own bottle rocket to model launching a rocket. 	
Programming 2: Bee-Bot (Option 1: Bee-Bot)		<ul style="list-style-type: none"> • Building blocks. • Charged Bee-Bots or Blue-Bots (ideally six) – if you only have one then the pupils can take turns. • Fully charged digital recording devices, to record visuals and sound (digital cameras, tablets, laptops with webcams). • A large space, the school hall or playground. • Several coloured cones, depending on the size of the space. 	
Programming 2: Bee-Bot (Option 2: Virtual Bee-Bot)	<ul style="list-style-type: none"> • Terrapin Logo - Bee-Bot. 	<ul style="list-style-type: none"> • Fully charged digital recording devices, to record visuals and sound (digital cameras, tablets, desktops/laptops with webcams or screen-capturing capabilities). • A large space, the school hall or playground. • Coloured cones or bean bags. 	

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Year 1 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Creating media: Digital imagery	<ul style="list-style-type: none"> • Google Photos. (PC/Laptop) • Google Photos app. (Tablets) • Google slides. • Microsoft Photos. • Microsoft Powerpoint. • Sketchpad. 	<ul style="list-style-type: none"> • A selection of small people toys and animals/dinosaurs. • Picture book (optional). • Small world play characters – one person and one animal per group. • Digital cameras/tablets – maximum of one, per groups of four pupils. 	<p>Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: UK Safer Internet Centre - Appropriate filtering and monitoring'</p>
Data handling: Introduction to data	<ul style="list-style-type: none"> • Sketchpad 	<ul style="list-style-type: none"> • Counting apparatus e.g. cubes, lolly sticks etc. • Tablet or digital camera (more if you want children to take photos of their own work). • Clipboards – one per group of three or four pupils. 	
Online safety		<ul style="list-style-type: none"> • Paper plates or plain A4 paper/card for masks – one per pupil. • Ribbon or string – one per pupil. 	

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Year 2 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Computing systems and networks 1: What is a computer?	<ul style="list-style-type: none"> • Sketchpad. 	<ul style="list-style-type: none"> • Sticky notes for each table group – approximately 10 per group. • Clipboards – one per group of four pupils. • Tablets or digital cameras – one per group of four pupils. • 5 cameras or tablets for filming. • 10 whiteboards. 	
Programming 1: Algorithms and debugging	<ul style="list-style-type: none"> • Scratch (website). 	<ul style="list-style-type: none"> • Whiteboards and pens or notebooks. • Lego or building blocks. • Digital camera (optional). • Mini figures. • A3 paper to draw plan views. • Coloured pencils for any colour. • Partition wall, such as a piece of cardboard. • Flat surface, such as a desk. 	Although Scratch is recommended for educational purposes and is used in many schools, it is an external website and we do not have control over its content. Therefore, we recommend that teachers carefully check any links to the Scratch website before the lesson – especially in the comments section. On some pages, users can comment on projects which are only moderated by Scratch.
Computing systems and networks 2: Word processing	<ul style="list-style-type: none"> • Microsoft Word or Google Docs. 	<ul style="list-style-type: none"> • Pupils to select a book they like from the library or classroom. • A copy of 'The Gingerbread Man' or another well-known tale. 	Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: UK Safer Internet Centre - Appropriate filtering and monitoring.
Programming 2 option 1: MakeCode	<ul style="list-style-type: none"> • MakeCode. 	<ul style="list-style-type: none"> • Whiteboards and pens. • Scissors and glue sticks. • Strips of paper. • A4 paper. 	Although MakeCode is recommended for educational purposes and is used in many schools, it is an external website and we do not have control over its content. Therefore, we recommend that teachers carefully check any links to the MakeCode website before the lesson.
Programming 2 option 2: Scratch Jr	<ul style="list-style-type: none"> • ScratchJr. 	<ul style="list-style-type: none"> • Camera/recording device to record children's progress (optional). • Suitable age-appropriate joke books or jokes printed from online (optional). 	Stop Motion Studio contains in-app purchases (that are not required). Make sure that tablets are set up so that pupils cannot make purchases via this method.

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Year 2 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Creating media: Stop motion - Option 1: Using tablets	<ul style="list-style-type: none"> Stop motion studio (app) - Android or iOS. 	<ul style="list-style-type: none"> Sticky notes – nine/ten per pupil (optional). 	
Creating media: Stop motion - Option 2: Using desktops/laptops	<ul style="list-style-type: none"> Microsoft Photos. 	<ul style="list-style-type: none"> Digital cameras. Devices with 'Microsoft Photos' installed. Sticky notes – nine/ten per pupil (optional). Digital cameras or tablets (children can work in small groups or pairs depending on how many devices you have available). 	
Data handling: International Space Station	<ul style="list-style-type: none"> Sketchpad. 	<ul style="list-style-type: none"> Put a thermometer in at least five different places around the school – preferably areas that will have different temperatures. 	
Online safety		<ul style="list-style-type: none"> Have a box or bag full of a few objects that are special to you e.g. photo of family members, cuddly toys etc. Scissors – at least one per table group. 	

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Year 3 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Computing systems and networks 1: Networks		<ul style="list-style-type: none"> ● Ball of string or wool. ● Clipboards. ● Whiteboards and pens. ● A tray or box. ● PE bibs. ● 10 envelopes. ● A3 paper. ● Gluesticks. ● Scissors. ● Building blocks or cubes. ● Stopwatch or timer. 	
Programming: Scratch	<ul style="list-style-type: none"> ● Scratch (website). 		<p>Rather than setting up class/teacher accounts/logins, we recommend that pupils access the Scratch website as a guest. They will still have full access to all the creation tools and can take lessons and tutorials, but will need to save their work as a 'download' instead of online. This alleviates any data collection issues and monitoring requirements around potential staff/pupil interaction.</p> <p>Although Scratch is recommended for educational purposes and is used in many schools, it is an external website and we do not have control over its content. Therefore, we recommend that teachers carefully check any links to the Scratch website before the lesson – especially in the comments section. On some pages, users can comment on projects which are only moderated by Scratch.</p>
Computer systems and networks 2: Emailing (Google version)	<ul style="list-style-type: none"> ● Gmail. 		<p>Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: 'UK Safer Internet Centre - Appropriate filtering and monitoring'.</p> <p>Set up Gmail accounts for each child. Consider using a colour followed by numbers (passwords must be eight characters long). Speak to your admin to ensure the pupil email addresses are only able to email within the school domain (people with 'school' email addresses). Set up a 'teacher' account for incoming emails from pupils</p>

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Year 3 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Computer systems and networks 2: Emailing (Microsoft version)	<ul style="list-style-type: none"> Microsoft Outlook. 		<p>Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: 'UK Safer Internet Centre - Appropriate filtering and monitoring'.</p> <p>Set up Outlook accounts for each child. Consider using a colour followed by numbers (passwords must be eight characters long). Speak to your admin to ensure the pupil email addresses are only able to email within the school domain (people with 'school' email addresses). Set up a 'teacher' account for incoming emails from pupils.</p>
Computing systems and networks 3: Journey inside a computer	<ul style="list-style-type: none"> Sketchpad. 	<ul style="list-style-type: none"> Pieces of string. Large sized paper – one piece per table. Felt tip pens – variety of colours on each table. Tablet or device with QR code scanner installed. 	
Creating media: Video trailers (Option 1 - using devices other than iPads)	<ul style="list-style-type: none"> WeVideo. 	<ul style="list-style-type: none"> Access to a selection of books that the children will be familiar with. Cameras or tablets. 	
Creating media: Video trailers (Option 2 - using iPads)	<ul style="list-style-type: none"> iMovie (app). 	<ul style="list-style-type: none"> Access to a selection of books that the children will be familiar with. 	

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Year 3 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Data handling: Comparison cards databases	<ul style="list-style-type: none"> • Google Forms. • Google Sheets. • Microsoft Forms. • Microsoft Excel 	<ul style="list-style-type: none"> • Example of paper databases such as an Argos catalogue or a phone book (optional). 	
Online safety			<p>This unit contains some discussion around social media platforms. Although we are aware that some children will have access to social media through platforms that are age-appropriate, it is crucial that teachers remind children that they should not be accessing a number of the more well-known sites (e.g. Facebook, Instagram, Twitter, Tik Tok etc.) or creating accounts on these platforms until they are 13+.</p>

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Year 4 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Computing systems and networks: Collaborative learning (Google version)	<ul style="list-style-type: none"> Google Docs. Google Slides. Google Forms. Google Sheets. 		
Computing systems and networks: Collaborative learning (Microsoft version)	<ul style="list-style-type: none"> Microsoft Word. Microsoft Forms. Microsoft Excel. 		
Programming 1: Further coding with Scratch	<ul style="list-style-type: none"> Scratch (website). 		<p>Rather than setting up class/teacher accounts/logins, we recommend that pupils access the Scratch website as a guest. They will still have full access to all the creation tools and can take lessons and tutorials, but will need to save their work as a 'download' instead of online. This alleviates any data collection issues and monitoring requirements around potential staff/pupil interaction.</p> <p>Although Scratch is recommended for educational purposes and is used in many schools, it is an external website and we do not have control over its content. Therefore, we recommend that teachers carefully check any links to the Scratch website before the lesson – especially in the comments section. On some pages, users can comment on projects which are only moderated by Scratch.</p>
Creating media: Website design (Google version)	<ul style="list-style-type: none"> Google Sites. 		<p>Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: 'UK Safer Internet Centre - Appropriate filtering and monitoring'.</p> <p>This unit contains some discussion around social media platforms. Although we are aware that some children will have access to social media through platforms that are age-appropriate, it is crucial that teachers remind children that they should not be accessing a number of the more well-known sites (e.g. Facebook, Instagram, Twitter, Tik Tok etc.) or creating accounts on these platforms until they are 13+.</p>

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Year 4 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Creating media: Website design (Microsoft version)	<ul style="list-style-type: none"> Microsoft Sway. Microsoft Word. 		<p>Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: 'UK Safer Internet Centre - Appropriate filtering and monitoring'.</p> <p>This unit contains some discussion around social media platforms. Although we are aware that some children will have access to social media through platforms that are age-appropriate, it is crucial that teachers remind children that they should not be accessing a number of the more well-known sites (e.g. Facebook, Instagram, Twitter, Tik Tok etc.) or creating accounts on these platforms until they are 13+.</p>
Skills showcase: HTML	<ul style="list-style-type: none"> Trinket. 		
Programming 2: Computational thinking	<ul style="list-style-type: none"> Scratch (website). 	<ul style="list-style-type: none"> Prepare bead strings with repeated patterns. Prepare a short dance or hand clap sequence – long enough that the children won't be able to easily follow it. Plasticine (one per pair or small group). Dice. 	<p>Rather than setting up class/teacher accounts/logins, we recommend that pupils access the Scratch website as a guest. They will still have full access to all the creation tools and can take lessons and tutorials, but will need to save their work as a 'download' instead of online. This alleviates any data collection issues and monitoring requirements around potential staff/pupil interaction.</p> <p>Although Scratch is recommended for educational purposes and is used in many schools, it is an external website and we do not have control over its content. Therefore, we recommend that teachers carefully check any links to the Scratch website before the lesson – especially in the comments section. On some pages, users can comment on projects which are only moderated by Scratch.</p>
Data handling: Investigating Weather	<ul style="list-style-type: none"> Google Sheets or Microsoft Excel. Sketchpad. Film editing software such as iMovie (optional). 	<ul style="list-style-type: none"> Recycled materials, such as plastic packaging, bottles, cardboard packaging. Tape. Split pins, pipe cleaners. Plastic or paper straws. 	
Online safety			

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Year 5 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Computing systems and networks: Search engines	<ul style="list-style-type: none"> Sketchpad. 	<ul style="list-style-type: none"> Non-fiction texts – at least one between three. At least 15 each of the following – pencils, erasers, whiteboards and rulers (or other appropriate objects). 	<p>Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: 'UK Safer Internet Centre - Appropriate filtering and monitoring'.</p> <p>This unit is planned around the topic of the Tudors, but can be linked to any topic that the children are currently studying.</p> <p>Using the same devices that the children will use, search the terms before the lesson, to see what shows through the search filters to make sure there are no issues with any inappropriate content.</p>
Programming 1: Music	<ul style="list-style-type: none"> Scratch (website). 	<ul style="list-style-type: none"> Headphones (strongly recommended). Headphone splitters (if pupils are sharing laptops). Choose a story for the children to work with. Ideally, it should be something the children have been working on in English/Guided Reading, or you could choose a familiar, short picture book. 	<p>Rather than setting up class/teacher accounts/logins, we recommend that pupils access the Scratch website as a guest. They will still have full access to all the creation tools and can take lessons and tutorials, but will need to save their work as a 'download' instead of online. This alleviates any data collection issues and monitoring requirements around potential staff/pupil interaction.</p> <p>Although Scratch is recommended for educational purposes and is used in many schools, it is an external website and we do not have control over its content. Therefore, we recommend that teachers carefully check any links to the Scratch website before the lesson – especially in the comments section. On some pages, users can comment on projects which are only moderated by Scratch.</p>
Data handling: Mars Rover 1			

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Year 5 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Creating media: Stop motion animation (Option 1 - Stop motion studio)	<ul style="list-style-type: none"> Stop motion studio (app) Android or iOS. 	<ul style="list-style-type: none"> Plasticine to create objects/characters. Plastic containers or cellophane to wrap creations in. 	
Creating media: Stop motion animation (Option 2 - with cameras)	<ul style="list-style-type: none"> Microsoft Photos. 	<ul style="list-style-type: none"> Plasticine to create objects/characters. Plastic containers or cellophane to wrap children's creations with. Cameras – one between four (minimum). 	
Programming 2: Micro:bit	<ul style="list-style-type: none"> BBC micro:bit app Android or iOS or you can use the website if using laptops/desktops. 	<ul style="list-style-type: none"> BBC micro:bits and battery packs. Micro USB cables if you're using laptops. If you have no access to BBC micro:bits then use the online emulator available on the website. 	<p>This series of lessons uses a BBC micro:bit which is a small programmable device.</p> <p>If your school does not already own them, they are widely available to buy or borrow (try Google), but it's important to check what you're buying:</p> <ul style="list-style-type: none"> If you're connecting to BBC micro:bits using laptops you will need a micro USB cable included If you're connecting via a tablet's Bluetooth, it can be useful to have a battery pack for the BBC micro:bits, allowing children to move around with their programs. <p>If you have both laptops and tablets in your school, we recommend using the laptops as they can be easier to organise in a classroom setting.</p> <p>If none of these options are possible, you can view some functionality using the BBC micro:bit emulator online. This enables you to see how the BBC micro:bit would behave, however it is not as engaging as the real thing.</p>

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Year 5 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Skills showcase: Mars Rover 2	<ul style="list-style-type: none"> Microsoft Excel or Google Sheets. TinkerCAD. 	<ul style="list-style-type: none"> Squared or graph paper – one per pupil. 	<p>TinkerCAD is a free application for 3D design, electronics and coding. For information on how to register the children on TinkerCAD, please visit the link: Guide to TinkerCAD classrooms. TinkerCAD is accessible via internet browsers (such as Chrome or Safari) on desktops, laptops and tablets. Download the app or Chrome extension using the links below: Link: App Store - TinkerCAD. Link: Chrome Web Store - TinkerCAD.</p> <p>Keep all children in 'safe mode' to prevent them from accessing the entire TinkerCAD online community. Consult the school's policy on external online software with individual pupil and teacher logins. Ensure that all communication (pupil to pupil and teacher to pupil) is transparent, regularly checked and moderated.</p>
Online safety	<ul style="list-style-type: none"> Microsoft Word or Google Docs. 	<ul style="list-style-type: none"> A3 poster paper – enough for one between two pupils. 	<p>This unit contains some discussion around social media platforms. Although we are aware that some children will have access to social media through platforms that are age-appropriate, it is crucial that teachers remind children that they should not be accessing a number of the more well-known sites (e.g. Facebook, Instagram, Twitter, Tik Tok etc.) or creating accounts on these platforms until they are 13+.</p>

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Year 6 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
Computer systems and networks: Bletchley Park and the history of computers	<ul style="list-style-type: none"> • Scratch (website). • Google Slides. • Microsoft Powerpoint. • TinkerCAD. • TwistedWave. 	<ul style="list-style-type: none"> • Access to internal microphones or USB microphones for the computers you are using. • Provide headphones if possible. • Outdoor space or large hall for the start of the lesson. 	<p>Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: 'UK Safer Internet Centre - Appropriate filtering and monitoring'.</p> <p>Rather than setting up class/teacher accounts/logins, we recommend that pupils access the Scratch website as a guest. They will still have full access to all the creation tools and can take lessons and tutorials, but will need to save their work as a 'download' instead of online. This alleviates any data collection issues and monitoring requirements around potential staff/pupil interaction.</p> <p>Although Scratch is recommended for educational purposes and is used in many schools, it is an external website and we do not have control over its content. Therefore, we recommend that teachers carefully check any links to the Scratch website before the lesson – especially in the comments section. On some pages, users can comment on projects which are only moderated by Scratch.</p>
Computer systems and networks: Exploring AI	<ul style="list-style-type: none"> • Kidgeni (website). • Trinket. 	<ul style="list-style-type: none"> • Devices with internet access (one between two). • Blank paper (one each). 	
Data handling 1: Big data 1	<ul style="list-style-type: none"> • Microsoft Excel or Google Sheets. 	<ul style="list-style-type: none"> • Range of working remotes (e.g. for an interactive whiteboard, television, stereo, etc) – ideally one per table. • Video recording devices, e.g. tablets, digital cameras or laptops with built-in cameras. 	

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Year 6 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
<p>Programming: Intro to Python</p>	<ul style="list-style-type: none"> • Turtle Academy. • Trinket. • Scratch (website). 		<p>This lesson uses an online piece of software called Trinket.</p> <p>We would recommend using Trinket without signing in. If you, the teacher, have shared the link contained within the lesson plan, perhaps on your school network, then there is no need to log-in.</p> <p>It's important that pupils understand that Trinket creates public web pages and projects that can be viewed by anyone with the link so it's worth recapping the importance of not sharing personal information online.</p> <p>Rather than setting up class/teacher accounts/logins, we recommend that pupils access the Scratch website as a guest. They will still have full access to all the creation tools and can take lessons and tutorials, but will need to save their work as a 'download' instead of online. This alleviates any data collection issues and monitoring requirements around potential staff/pupil interaction.</p> <p>Although Scratch is recommended for educational purposes and is used in many schools, it is an external website and we do not have control over its content. Therefore, we recommend that teachers carefully check any links to the Scratch website before the lesson – especially in the comments section. On some pages, users can comment on projects which are only moderated by Scratch.</p>
<p>Data handling 2: Big data 2</p>		<ul style="list-style-type: none"> • Access to an outdoor space, lines marked on the ground approximately ten meters apart. • One tennis racket between three pupils. 	

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Year 6 - Hardware, software and equipment list

Unit	Software	Equipment and additional hardware*	Notes
<p>Skills showcase: Inventing a product</p>	<ul style="list-style-type: none"> BBC micro:bit app Android or iOS or you can use the website if using laptops/desktops. TinkerCAD. Google Sites. Microsoft Sway WeVideo. 	<ul style="list-style-type: none"> BBC micro:bits and battery packs. Micro USB cables if you're using laptops. If you have no access to BBC micro:bits then use the online emulator available on the website. 	<p>This unit uses a BBC micro:bit which is a small programmable device. If your school does not already own them, they are widely available to buy or borrow (try Google), but it's important to check what you're buying:</p> <ul style="list-style-type: none"> If you're connecting to BBC micro:bits using laptops you will need a micro USB cable included If you're connecting via a tablet's Bluetooth, it can be useful to have a battery pack for the BBC micro:bits, allowing children to move around with their programs. <p>If you have both laptops and tablets in your school, we recommend using the laptops as they can be easier to organise in a classroom setting. If none of these options are possible, you can view some functionality using the BBC micro:bit emulator online. This enables you to see how the BBC micro:bit would behave, however it is not as engaging as the real thing.</p> <p>TinkerCAD is a free application for 3D design, electronics and coding. For information on how to register the children on TinkerCAD, please visit the link: Guide to TinkerCAD classrooms. TinkerCAD is accessible via internet browsers (such as Chrome or Safari) on desktops, laptops and tablets. Download the app or Chrome extension using the links below: Link: App Store - TinkerCAD. Link: Chrome Web Store - TinkerCAD.</p> <p>Keep all children in 'safe mode' to prevent them from accessing the entire TinkerCAD online community. Consult the school's policy on external online software with individual pupil and teacher logins. Ensure that all communication (pupil to pupil and teacher to pupil) is transparent, regularly checked and moderated.</p> <p>Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: UK Safer Internet Centre - Appropriate filtering and monitoring.</p>
<p>Online safety</p>	<ul style="list-style-type: none"> Microsoft Word or Google Docs. 		<p>Please be aware of the online safety rules surrounding your responsibility as a school to have the correct filtering systems in place to protect children from viewing and reading inappropriate content. For further information, refer to the Safer internet organisation guidance found on this link: UK Safer Internet Centre - Appropriate filtering and monitoring.</p> <p>This unit contains some discussion around social media platforms. Although we are aware that some children will have access to social media through platforms that are age-appropriate, it is crucial that teachers remind children that they should not be accessing a number of the more well-known sites (e.g. Facebook, Instagram, Twitter, Tik Tok etc.) or creating accounts on these platforms until they are 13+.</p>

*Not including lesson printables, devices and items commonly found in the classroom e.g.pens, pencils, whiteboards etc.

Version history

This page shows recent updates to this document.

Date	Update
13.09.22.	First published.
12.04.23	Broken links fixed. Updates to alternative versions.
21.06.23	Further updates to alternative versions.
04.09.23	Updates to links to reflect refreshed units.
30.04.24	Updates to links to reflect refreshed units.
28.06.24	Updated content to reflect refreshed units on the website.
20.08.04	Updated content to reflect refreshed units on the website.
25.09.24	Updated to add in new MakeCode unit for Year 2.
04.10.24	Updated to add in new Exploring AI unit for Year 6.
14.10.24	Updates to links to reflect refreshed units.
25.10.24	Updates to links.