Eaton Primary School

Progression of Learning

Supported by the scheme of work produced by:

Kapow Primary

Progression of Knowledge and Skills

How this document works:
This is a whole school overview, demonstrating progression in knowledge and skills.

Page 1: Demonstrates what a typical learner will look like at the end of each phase, combining the key skills and knowledge they will require.

Page 2 onwards: Demonstrates progression in knowledge and skills objectives for each phase, with key vocabulary, and also 'key indicators' which identify intended learning outcomes.

	Foundation/ EYFS	KS1	LKS2	UKS2
	Data Handling Children are introduced to the idea of logging simple data. Links are made between Maths and Science to create meaningful lessons. The children are able to identify information from the data collected. **Programming** Children are introduced with links made to early Maths about simple instructions and directional language. This is done using programable BeeBots. **Computer systems and networks** Children in EYFS begin their journey into the	**Data Handling** Children make genuine links between their computing and Maths when grouping and creating pictograms to understand and handle data. **Programming** In KS1 children are introduced to basic programming - both on screen and unplugged. They program bee-Bots to move around maps, go through mazes and follow instructions to move around the floor. Children are introduced to Scratch Jnr and have opportunity to build on what they learnt in their previous year about algorithms, they use the app and the programming skills to develop and create simple quizzes and animations. **Computer systems and networks** They learn about what information technology is, how it makes a difference to our lives and how we can use it responsibly. Throughout their time computing they also learn about the importance of kindness and of rules when working online ensuring and online safe presence. **Creating Media** Children In KS1, learn about how photographs can be manipulated when they study digital photography, using apps to edit their own photos and manipulate text	**Data Handling** Children learn to collect more data linked to weather to create their own reports. They build on previous skills to advance their abilities. **Programming** In LKS2 children progress from Scratch Jnr to Scratch, learning about how to add inputs to the programs they have created. They build on the work done on inputs in LKS2 and are given more complex problems to solve. Having learnt about inputs in previous year groups, children are taught how to loop instructions that introduce repetition to the actions they program. These techniques are used in a variety of projects. **Computer systems and networks** As part of their work on learning about how networks function, children go on tours of the school identifying the parts of the school network and they discuss how these all work together. Children are introduced to desktop publishing tools to combine text and images to communicate. During LKS2 children begin collaboratively learning via Microsoft Teams, unlocking further skills for their futures in education and beyond. **Creating Media** Children investigate how to produce simple video trailers they plan and map out their vision before filming and editing. Later on, they begin to build and	**Data Handling** The KS2 culminate their skills in Data Handling with a final Skills Showcase involving the Mars Rover Project. This is opportunity to demonstrate the learning and skill developed over the past years. **Programming** Children in KS2 build on previous work in programming and begin to learn the global programming language Python. This is a great way to prepare the future minds of tomorrow. **Computer systems and networks** Once the top-secret home of the codebreakers, now the subject of our final year students end task. We understand the importance of networks and search engines and the hard work that our computing predecessors achieved. **Creating Media** They have further opportunity to be creative when they complete their stop animation units. Children will be able to build their own sets when completing this unit.

	world of computing by first understanding the components of computers and the equipment that is available to them. These are often seen in provision. The children are able to log on to a computer and use a mouse with much success. Creating Media		advance on their understanding creating and using HTML.	
Year Group	EYFS	KS1	LKS2	UKS2

Data Handling

<u>Knowledge</u>	To know that sorting objects into various categories can help you locate information To know that using yes/no questions to find an answer is known as a branching database	To know how that charts and pictograms can be created using a computer To understand that a branching database is a way of clarifying a group of objects To know that computers understand different types of 'input'. To understand that you can enter simple data into a spreadsheet To understand what steps, you need to create an algorithm.	To know that a database is a collection of data stored in a logical, structured, and orderly manner. To know that computer databases can be useful for sorting and filtering data. To know that different visual representations of data can be made on a computer. To know that computers can use different forms of input to sense	To know that Mars Rover is a motor vehicle that collects data from space by taking photos and examining samples of rock. To know what numbers using binary code look like and be able to identify how messages can be sent in this format. To understand that RAM is Random Access Memory and acts as the computer's working memory. To know what simple operations can be used to calculate bit patterns.

		To know that a pictogram is a way of showing information	To know what data to use to answer certain questions To know that computers can be used to monitor supplies	the world around them so that they can record and respond to data ('sensor data'). To know that a weather machine is an automated machine that respond to sensor data To understand that weather forecasters use specific language, expression and pre-prepared scripts to help create weather forecast films.	To know the difference between mobile data and WiFi. To know that devices or that are not updated are most vulnerable to hackers. To know that data can become corrupted within a network but this is less likely to happen if it is sent in 'packets'. To know that data is often encrypted so that even if it is stolen it is not useful to the thief. To know that Radio Frequency Identification (RFID) is a more private way of transmitting data. To know that infrared waves are a way of transmitting data. To know that data contained within barcodes and QR codes can be used by computers
Skills		Exploring branch databases through physical games. Representing data through sorting and categorising objects in unplugged scenarios. Representing data through pictograms.	Learning where keys are located on the keyboard. Recognising that some devices are input devices and others are output devices. Learning how to explore and tinker with hardware to find out how it works. Developing control of the mouse through dragging, clicking and resizing of images to create different effects. Developing understanding of different software tools.	Using logical thinking to explore more complex software, predicting, testing and explaining what it does. Understanding the vocabulary associated with databases: field, record, data. Learning about the pros and cons of digital versus paper databases Sorting and filtering databases to easily retrieve information. Creating and interpreting charts and graphs to understand data. Understanding that weather	To know that Mars Rover is a motor vehicle that collects data from space by taking photos and examining samples of rock. To know what numbers using binary code look like and be able to identify how messages can be sent in this format. To understand that RAM is Random Access Memory and acts as the computer's working memory. To know what simple operations can be used to calculate bit patterns.

| | | Recognising devices that are connected to the internet.

Understanding that technology can be used to represent data in different ways.

Using data representations to answer questions about data.

Using software to explore and create pictograms and branching databases.

Developing confidence with the keyboard and the basics of touch typing.

Creating and labelling images.

Collecting and inputting data into a spreadsheet. Interpreting data from a spreadsheet.

Learning how computers are used in the wider world. Databases.

Developing confidence with the keyboard and the basics of touch typing.

Creating and labelling images.
Collecting and inputting data into a spreadsheet. interpreting data from a spreadsheet.

Learning how computers are used in the wider world | stations use sensors to gather and record data which predicts the weather

Using tablets or digital cameras to film a weather forecast.

Using keywords to effectively search for information on the internet.
Designing a device which gathers and records sensor data.

Understanding that data is used to forecast weather. Sorting data using the 'sort by…' option

Recording data in a spreadsheet independently | To know that data contained within barcodes and QR codes can be used by computers.

To know that infrared waves are a way of transmitting data.

To know that Radio Frequency Identification (RFID) is a more private way of transmitting data.
 To know that data is often encrypted so that even if it is stolen it is not useful to the thief.
 To know that data can become corrupted within a network but this is. less likely to happen if it is sent in 'packets'.

I know that devices or that are not updated are most vulnerable to hackers.

To know the difference between mobile data and WiFi. |
|---|---|---|---|

Key vocabulary		• approximate • Computer • Computer program • Create • Data • Digital content • e-document • experiment • folder • interactive map • interpret • laboratory • list • monitor • satellite • save Sensor Sequence • share • spreadsheet • survival • thermometer	• Algorithm • Automated machine • Calculate • Categorise • Climate • Data • Database • Device • Fields • Filter • Forecast • Graph • Information • Log data • Predict • Record • Sensor • Sort • Source • Spreadsheet • Temperature • Weather	• Barcode • Big data • Binary image • Bit • Bluetooth • Boolean • CAD • Commuter • Compression file • Computer simulation • Corrupt data • CPU • Data privacy • Encode • GPS • Infrared waves • JPEG •Memory • Pixels • RFID • RGB • SI
Key indicators	To know that sorting objects into various categories can help you locate information. To know that using yes/no questions to find an answer is a branching	To know how that charts and pictograms can be created using a computer. To understand that a branching database is a way of classifying a group of objects. To know that computers understand different types of 'input'. To understand that you can enter simple data into a spreadsheet. To understand what steps you need to take to create an algorithm.	To know that a database is a collection of data stored in a logical, structured and orderly manner. To know that computer databases can be useful for sorting and filtering data. To know that different visual representations of data can be made on a computer. To know that computers can use different forms of input to sense the world around them so that they can record	To know that Mars Rover is a motor vehicle that collects data from space by taking photos and examining samples of rock. To know what numbers using binary code look like and be able to identify how messages can be sent in this format. To understand that RAM is Random Access Memory and acts as the computer's working memory. To know what simple operations can be used to calculate bit

	database. To know that a pictogram is a way of showing information	To know what data to use to answer certain questions. To know that computers can be used to monitor supplies.	and respond to data. This is called 'sensor data'. To know that a weather machine is an automated sensor data. To understand that weather forecasters use specific language, expression and pre-prepared scripts to help create weather forecast films.	patterns. To know that data contained within barcodes and QR codes can be used by computers. To know that infrared waves are a way of transmitting data. To know that Radio Frequency Identification (RFID) is a more private way of transmitting data. To know that data is often encrypted so that even if it is stolen it is not useful to the thief. To know that data can become corrupted within a network but this is less likely to happen if it is sent in 'packets'. I know that devices or that are not updated are most vulnerable to hackers. To know the difference between mobile data and WiFi.

Programming

<u>Knowledge</u>	To know that being able to follow and give simple instructions in important in computing To understand that it is important for instructions to	To understand that an algorithm is when instructions are put in an exact order To know that input devices get information into a computer and that output devices get information out of a computer To understand that decomposition means breaking a problem down into manageable chunks and that it	To understand that you can remix and adapt existing code. To understand how decomposition is used in programming To understand how to use loops to improve programming. To know that Scratch is a programming language and some	To understand the use of random numbers and remix Python code. To know that nested loops are loops inside of loops. To know that there are text-based programming languages such as Logo and Python. To know what techniques to use to create a program for a specific purpose

be in the right order To understand why a set of instructions may have gone wrong To know that you can program a BeeBot with some simple commands to understand that debugging means how to fix some simple programming errors to understand that an algorithm is a set of clear and precise instructions.	is important in computing To know that an error in an algorithm is called a 'bug' and fixing it is called 'debugging' To understands the basic functions of a Bee-Bot. to know that you can use a camera/tablet to make simple videos. To know that algorithms move a Bee-Bot accurately to a chosen destination. To understand what machine learning is and how it enables computers to make predictions To know that loops in programming are where you set a certain instruction (or instructions) to be repeated multiple times. To know that abstraction is the removing of unnecessary detail to help solve a problem. To know that coding is writing in a special language so that the computer understands what to do. To understand that the character in ScratchJr is controlled by the programming blocks.	of its basic functions. To understand that a variable is a value that can change (depending on conditions) and know that you can create them in Scratch. To know what a conditional statement is in programming. To understand that variables can help you to create a quiz on Scratch. To know that combining computational thinking skills can help you to solve a problem. To understand that pattern recognition means identifying patterns to help them work out how the code works. To understand that algorithms can be used for a number of purposes e.g. animation, games design etc.	(including decomposition). To understand and recognise coding structures including variables To know that Micro:bit uses a block coding language similar to Scratch. To know that a Micro:bit is a programmable device. To know how to adapt their music while performing. To understand that using loops can make the process of writing music simpler and more effective. To know that a soundtrack is music for a film/video and that one way of composing these is on programming software.

		To know that you can write a program to create a musical instrument or tell a joke		
Skills	Learning how to explore and tinker with hardware to develop familiarity and introduce relevant vocabulary

Using logical reasoning to understand simple instructions and predict the outcome

Following instructions as part of practical activities and games.

Learning to give simple instructions.

Experimenting with programming a Bee-bot/ Blue-bot and learning how to give simple commands. | Learning how to explore and tinker with hardware to find out how it works.

Recognising that some devices are input devices and others are output devices.

Learning that decomposition means breaking a problem down into smaller parts.

Using decomposition to solve unplugged challenges.

Developing the skills associated with sequencing in unplugged activities.

Following a basic set of instructions.

Assembling instructions into a simple algorithm.

Programming a floor robot to follow a planned route.

Learning to debug instructions when things go wrong.

Using programming language to explain how a floor robot works

Learning to debug an algorithm in an unplugged scenario. | Using decomposition to explore the code behind an animation

Using logical reasoning to explain how simple algorithms work.

Explaining the purpose of an Algorithm.

Forming algorithms independently

Using logical thinking to explore more complex software; predicting, testing and explaining what it does.

Incorporating loops to make code more efficient

Continuing existing code.

Making reasonable suggestions for how to debug their own and others' code.

Using decomposition to solve a problem by finding out what code was used.

Using decomposition to understand the purpose of a script of code.

Creating algorithms for a specific purpose.

Coding a simple game.

Incorporating variables to make code more efficient. | To know that a soundtrack is music for a film/video and that one way of composing these is on programming software.

To understand that using loops can make the process of writing music simpler and more effective

To know how to adapt their music while performing.

To know that a Micro:bit is a programmable device.

To know that Micro:bit uses a block coding language similar to Scratch.

To understand and recognise coding structures including variables.

To know what techniques to use to create a program for a specific purpose (including decomposition).

To know that there are text-based programming languages such as Logo and Python.

To know that nested loops are loops inside of loops.

To understand the use of random numbers and remix Python code. |

	Learning to debug instructions, with the help of an adult, when things go wrong	Recognising that buttons cause effects, and that technology follows instructions. Explain what an algorithm is. Using software (and unplugged means) to create story animations. Developing word processing skills, including altering text, copying, and pasting and using keyboard shortcuts. Using loop blocks when programming to repeat an instruction more than once. Using an algorithm to write a basic computer program. Using logical thinking to explore software, predicting, testing and explaining what it does. incorporating loops within algorithms. Learning that programs execute by following precise instructions. Creating a clear and precise algorithm. Following an algorithm.	Remixing existing code	
Key vocabulary		Abstraction Algorithm Animation Artificial intelligence	Animation Application Code Code block	Computer command Emulator Hex file Import

		Bug Code Correct Debug Decompose Error Explain Explore Icon Imitate Instructions Key features Loop Predict Repeat Scratch JR Bee-Bot • Sequence • Tinker • unnecessary • Video	Collaboration Conditional statement Content copyright Create CSS Debug Decompose Design Direct Embed Feature Feature Hacker Header Hex code HTML Hyperlink Icon Insert Interface Internet browser Loop Online Orientation Permission Plan Position Predict Program Program web Project Remixing code Repetition code Review Scratch Script Sprite Tab Tinker URL	Indentation Live loop MICRO: BIT Nested loop pedometer Pitch Remix Systematic Variable Zip fil

			Variable Web page Website www	
<u>Key indicators</u>	To know that being able to follow and give simple instructions is important in computing. To understand that it is important for instructions to be in the right order. To understand why a set of instructions may have gone wrong. To know that you can program a Bee Bot with some simple commands. To understand that debugging means how to fix some simple programming errors.	To understand that an algorithm is when instructions are put in an exact order. To know that input devices get information into a computer and that output devices get information out of a computer. To understand that decomposition means breaking a problem into manageable chunks and that it is important in computing. To know that we call errors in an algorithm 'bug' and fixing these 'debugging'. To understand the basic functions of a Bee-Bot. To know that you can use a camera/tablet to make simple videos. To know that algorithms move a bee-bot accurately to a chosen destination. To understand what machine learning is and how that enables computers to make predictions.	To know that Scratch is a programming language and some of its basic functions. To understand how to use loops to improve programming. To understand how decomposition is used in programming. To understand that you can remix and adapt existing code. To understand that a variable is a value that can change (depending on conditions) and know that you can create them in Scratch. To know what a conditional statement is in programming. To understand that variables can help you to create a quiz on Scratch. To know that combining computational thinking skills (sequence, abstraction, decomposition etc) can help you to solve a problem. To understand that pattern recognition means identifying patterns to help them work out how the code works.	To know that a soundtrack is music for a film/video and that one way of composing these is on programming software. To understand that using loops can make the process of writing music simpler and more effective. To know how to adapt their code while performing their music. To know that a Micro:bit is a programmable device. To know that Micro:bit uses a block coding language similar to Scratch. To understand and recognise coding structures including variables. To know what techniques to use to create a program for a specific purpose (including decomposition). To know that there are text-based programming languages such as Logo and Python. To know that nested loops are loops inside of loops. To understand the use of random numbers and remix Python code

	To understand that an algorithm is a set of clear and precise instructions.	To know that loops in programming are where you set a certain instruction (or instructions) to be repeated multiple times. To know that abstraction is the removing of unnecessary detail to help solve a problem. To know that coding is writing in a special language so that the computer understands what to do. To understand that the character in ScratchJr is controlled by the programming blocks. To know that you can write a program to create a musical instrument or tell a joke.	To understand that algorithms can be used for a number of purposes e.g. animation, games design etc.	

Computer Systems and Network

Knowledge	To be able to understand what a computer keyboard is and recognise some letters and numbers To know that a mouse can be used to click, drag and create simple drawings	To know that "copy and paste" is a quick way of duplicating text. To know that I can make text a different style, size, and colour. To know that touch typing is the fastest way to type. To know the difference between a desktop and laptop computer. To know that people control technology.	To understand what a network is and how a school network might be organised. To know that a server is central to a network and responds to requests made. To know how the internet uses networks to share files. To know that a router connects us to the internet. To know what a packet is and why it is important for website data transfer. To know that cyberbullying is bullying using electronics such as a computer or phone.	To know how search engines work. To understand that anyone can create a website and therefore we should take steps to check the validity of websites. To know that web crawlers are computer programs that crawl through the internet. To understand what copyright is. To understand the importance of having a secure password and what "brute force hacking" is. To know that the first computers were

	To know that to use a computer you need to log in to it and then log out at the end of your session To know that different types of technology can be found at home and in school To know that you can take simple photographs with a camera or an iPad To know that you must hold the camera still to ensure the subject is in the shot to take the phot	To know that a computer and mouse can be used to click, drag, Fill and select and also add backgrounds, text, layers, shapes and clipart To know that passwords are important for security To know that often computers can work together	To understand that emails should contain appropriate and respectful content. To know that an attachment is an extra file added to an email. To understand that email stands for 'electronic mail.' To know what a tablet is and how it is different from a laptop/desktop computer. To know what some of the different components inside a computer are e.g. CPU, RAM, hard drive, and how they work together. To know the roles that inputs and outputs play on computers. To understand that software can be used collaboratively online to work as a team. To know what type of comments and suggestions on a collaborative document can be helpful	created at Bletchley Park to crack the Enigma code to help the war effort in World War 2. To know about some of the historical figures that contributed to technological advances in computing To understand what techniques are required to create a presentation using appropriate software
Skills	Recognising and identifying familiar letters and numbers on a keyboard. Developing basic mouse	Tinker with hardware to find out how it works. Learning where keys are located on the keyboard. Using a basic range of tools within graphic editing software.	Recognising what appropriate behaviour is when collaborating with others online. Understanding that software can be used collaboratively online to work as a team Using software to work collaboratively with others	To understand what techniques are required to create a presentation using appropriate software To know about some of the historical figures that contributed to technological advances in computing. To know that the first computers were created at Bletchley Park to crack the

	skills such as moving and clicking. Using a simple online paint tool to create digital art. Learning to log in and log out	Developing control of the mouse through dragging, clicking and resizing of images to create different effects. Developing understanding of different software tools. Recognising devices that are connected to the internet. Logging in and out and saving work on their own account. Understanding what a computer is and that it's made up of different components. Recognising that buttons cause effects, and that technology follows instructions. Learning how we know that technology is doing what we want it to do via its output. Using greater control when taking photos with cameras, tablets or computers. Learning how computers are used in the wider world. Creating and labelling images • Using word processing software to type and reformat text.	Use online software for documents, presentations, forms and spreadsheets Understanding that computer networks provide multiple services, such as the World Wide Web, and opportunities for communication and collaboration. Learning that not all emails are genuine, recognising when an email might be fake and what to do about it Learning about cyberbullying. Understanding the purpose of emails. Replying to an email. Sending an email with an attachment. Writing an email including a subject, 'to' and 'from' Learning to log in and out of an email account. Using decomposition to explain the parts of a laptop computer. Learn how data is transferred Recognising links between networks and the internet. Identifying the key components within a network, including whether they are wired or wireless.	Enigma code to help the war effort in World War 2. To understand the importance of having a secure password and what "brute force hacking" is To know that web crawlers are computer programs that crawl through the internet. To know what copyright is To understand that anyone can create a website and therefore we should take steps to check the validity of websites

			Developing word processing skills, including altering text, copying and pasting and using keyboard shortcuts	Understanding how networks work and their purpose. Learning about the role of packets Understanding that websites & videos are files that are shared from one computer to another. Understanding the role of the key components of a network. Drawing comparisons across different types of computers. Learning about the purpose of routers. Understanding what the different components of a computer do and how they work together	
Key vocabulary			Account Backspace Battery Buttons Clipart Computer Copyright Delete Desktop Device Electricity Image Import Input Input Invention Keyboard Laptop Log off	Abstraction Algorithm design BCC CC Code Code blocks Computational thinking Computer CPU Cyberbully Data Decompose Desktop Domain DSL edit e-document email File	Acrostic code Background noise Brute force hacking Byte Caesar cipher Chip and pin system Cipher Data privacy Date shift cipher Encrypt Fake news Inaccurate information Index Keyword Nth letter cipher Page rank Pigpen cipher ROM TASK

		Monitor Mouse Output Password Paste Redo Resize Screen Space bar Technology Touch typing username Word processing	GPU Hard disk drive icon insert Instructions Internet link Log off Log on Network Network map Network switch Password Pattern recognition Presentation presentation software Problem QR code RAM Reviewing comments ROM Router Sequence Server Share Spam Spreadsheet Submarine The cloud Trackpad Transition Username	Web crawler
<u>Key indicators</u>	To be able to understand what a computer keyboard is and recognising some letters	To know that "log in and log out" means to begin and end a connection with a computer. To know that a computer and mouse can be used to	To know what a tablet is and how it is different from a laptop/desktop computer. To understand what a network is and how a school network might be organised.	To know how search engines work. To understand that anyone can create a website and therefore we should take steps to check the validity of websites.

and numbers. To know that a mouse can be used to click, drag and create simple drawings. To know that to use a computer you need to log in to it and then log out at the end of your session. To know that different types of technology can be found at home and in school. To know that you can take simple photographs with a camera or iPad. To know that you must hold the camera still and ensure the subject is in the shot to take a photo.	click, drag, fill and select and also add backgrounds, text, layers, shapes and clip art. To know that passwords are important for security. To know that when we create something on a computer it can be more easily saved and shared than a paper version. To know some of the simple graphic design features of a piece To know the difference between a desktop and laptop computer. To know that people control technology. To know that buttons are a form of input that give a computer an instruction about what to do (output). To know that computers often work together. To know that touch typing is the fastest way to type. To know that I can make text a different style, size and colour. To know that "copy and paste" is a quick way of duplicating text	To know that a server is central to a network and responds to requests made. To know how the internet uses networks to share files. To know that a router connects us to the internet. To know what a packet is and why it is important for website data transfer. To know the roles that inputs and outputs play on computers. To understand that email stands for 'electronic mail.' To know that an attachment is an extra file added to an email. To understand that emails should contain appropriate and respectful content. To know what some of the different components inside a computer are e.g. CPU, RAM, hard drive, and how they work together. To understand that software can be used collaboratively online to work as a team. To know what type of comments and suggestions on a collaborative document can be	To know that web crawlers are computer programs that crawl through the internet. To understand what copyright is. To know the difference between ROM and RAM' To understand the importance of having a secure password and what "brute force hacking" is. To know that the first computers were created at Bletchley Park to crack the Enigma code to help the war effort in World War 2. To know about some of the historical figures that contributed to technological advances in computing. To understand what techniques are required to create a presentation using appropriate software

			helpful. To know that you can use images, text, transitions and animation in presentation slides.	
Creating Media				
Knowledge	To know that the mouse can be used to click, drag, and create simple drawings To know that you can take photographs with a camera or an iPad To know that you must hold a camera still and ensure the subject is in the shot to take a photo	To understand that holding the camera still and considering angles and light are important to take good pictures. To know that you can edit, crop and filter photographs. To know how to search safely for images online. To understand that an animation is made up of a sequence of photographs. To know that small changes in my frames will create a smoother looking animation To understand what software creates simple animations and some of its features e.g., onion skinning.	To know that a website is a collection of pages that are all connected. To know that websites usually have a homepage and subpages as well as clickable links to new pages, called hyperlinks. To know that different types of camera shots can make my photos or videos look more effective. To know that I can edit photos and videos using film editing software. To understand that I can add transitions and text to my video. To know that websites should be informative and interactive	To know that sound clips can be edited and trimmed. To know that sound clips can be recorded using sound recording software. To know that radio plays are plays where the audience can only hear the action so sound effects are important. To know that editing is an important feature of making and improving a stop motion animation To understand that stop motion animation is an animation filmed one frame at a time using models, and with tiny changes between each photograph. To know that decomposition of an idea is important when creating stop-motion animations.
Skills	Using a simple online paint tool to create digital art. Learning how to operate a camera to take	Learning how to explore and tinker with hardware to find out how it works. Learning where keys are located on the keyboard.	Using logical thinking to explore more complex software, predicting, testing, and explaining what it does. Taking photographs and recording video to tell a story.	To know that decomposition of an idea is important when creating stop-motion animations. To understand that stop motion animation is an animation filmed one frame at a time using models, and with tiny changes between each photograph.

| photographs of meaningful creations or moments | Learning how to operate a camera to take photos and videos.

Developing the skills associated with sequencing in unplugged activities.

Using a basic range of tools within graphic editing software

Taking and editing photographs.

Developing control of the mouse through dragging, clicking, and resizing of images to create different effects.

Developing understanding of different software tools.

Searching and downloading images from the internet safely.

When using the internet to search for images, learning what to do if they come across something online that worries them or makes them feel uncomfortable.

Using greater control when taking photos with cameras, tablets or computers.

Using logical thinking to explore software, predicting, testing and explaining what it does.

Using software (and unplugged means) to create story animations. | Using software to edit and enhance their video adding music, sounds and text on screen with transitions.

Using software to work collaboratively with others.

Use online software for documents, presentations, forms, and spreadsheets

Designing and creating a webpage for a given purpose.

Building a web page and creating content for it. | To know that editing is an important feature of making and improving a stop motion animation

To know that sound clips can be edited and trimmed

To know that sound clips can be recorded using sound recording software

To know that radio plays are plays where the audience can only hear the action so sound effects are important. |

Key vocabulary		Animation Animator Camera Contraption Crop Decompose Delete Design Device Download Drag and drop Editing software Film review Filming Image Import Import image Photograph Plan Resize Save as Search engine Sequence Sketch Smart device Software Stop motion Storage Storyboard Upload Visual effects	Application Desktop Digital device Edit Film Film editing software Graphics Import Key events Laptop Plan Recording Sound effects Time code Video voiceover	Duplicate Illusion Upload Frame Device
Key indicators		To understand that holding the camera still and considering angles and light are important to take good pictures. To know that you can edit, crop and filter photographs.	To know that different types of camera shots can make my photos or videos look more effective. To know that I can edit photos and videos using film editing software.	To understand that stop motion animation is an animation filmed one frame at a time using models, and with tiny changes between each photograph. To know that decomposition of an idea is important when creating stop-motion animations.

		To know how to search safely for images online. To understand that an animation is made up of a sequence of photographs. To know that small changes in my frames will create a smoother looking animation To understand what software creates simple animations and some of its features e.g. onion skinning.	To understand that I can add transitions and text to my video. To know some of the features of web design software. To know that a website is a collection of pages that are all connected. To know that websites usually have a homepage and subpages as well as clickable links to new pages, called hyperlinks. To know that websites should be informative and interactive.	To know that editing is an important feature of making and improving a stop motion animation. To know that radio plays are plays where the audience can only hear the action so sound effects are important. To know that sound clips can be recorded using sound recording software. To know that sound clips can be edited and trimmed.