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Please complete the pre and end of unit tasks for each unit and complete the assessment tracker at the end of each lesson. This will inform your end of year grades

Skills and Knowledge covered through the units over the year

Online Safety	Computing Systems and Networks	Data Handling	Programming	Creating Media
Reception - all online safety lessons are taken from NOS • To name and recognise on comparison of arised and upset emotions. • Recognise, recognise, recognise on line or offline and Sky UK said no thank you. I'll tell out how. Ask Ask to somebody who makes him feel sad, uncomfortable, embarrassed, or upset • Recognise ways in which the Internet can be used to communicate. • To describe ways people can be unkind online. • To identify devices that you can access the information on the Internet. • To identify ways and rules that help keep us safe and healthy and beyond using the Internet and technology technology. • To understand what personal information is. • To know who can be a trusted adult. • To know that work I created belongs to me. • .	Year 1 - Lesson 1-4 Kapow, lessons 5-6 Project Evolve • To know that the internet is many devices connected to one another. • To know that you should tell a trusted adult if you feel unsafe or worried online. • To know that people you do not know on the internet (online) are strangers and are not always who they say they are. • To know that to stay safe online it is important to keep personal information safe. • To know that 'sharing online means giving something specific to someone else via the internet and 'posting' online means placing information on the internet.	Year 2 lesson 1-5 Kapow, lesson 6 Project Evolve • To understand the difference between online and offline. • To understand what information I should not post online. • To know what the techniques are for creating a strong password. • To know that you should ask permission from others before sharing about them online and that they have the right to say 'no.' • To understand that not everything I see or read online is true.		
• To be able to understand what a computer keyboard is and recognising some letters and numbers. • To know that a mouse can be used to click, drag and create simple drawings.	• 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 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 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		

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• 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.	• 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 of online software.	
• 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 database.		• 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 what data to use to answer certain questions. • To know that computers can be used to monitor supplies.
• 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 understand that an algorithm is when instructions are put in an exact order. • 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 'bugs' 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 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 Scratch Junior is controlled by the programming blocks. • To know that you can write a programme to create a musical instrument
	• 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.	
Self image and identity **Lesson 1: What can we do if someone makes us feel uncomfortable, embarrassed, or upset online or offline?** **Objective :** • **I can name and recognise uncomfortable, embarrassed and upset emotions.** • **I can recognise online or offline, but anyone can say no thank you. Please stop. I'll tell. I'll ask. To somebody who makes them feel sad, uncomfortable, embarrassed, or upset.** **Key Vocab:** : Sad., Uncomfortable, Embarrassed., Upset , On line, Offline, Trusted adult.	recap activity https://www.educaplay.com/learning-resources/15623329-staying_safe_online.html **Online Relationships** **Lesson 1: Using the Internet Safely** **Objective:** • **To know what the internet is and how to use it safely** ***National Curriclum*** • *recognise common uses of information technology beyond school , to use technology safely and respectfully, keeping personal information private;* **Skills :**	recap activity https://www.educaplay.com/learning-resources/15610613-year_2_online_safety_recap_activity.html **Online Reputation** **Lesson 1: What happens when I post online?** **Objective: To know what happens to information posted online.** ***National Curriculum*** • ***Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.***

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	• **I** understand what the Internet is. • To know how to offer advice to anyone who is being treated unkindly online. • To know who to go to, when help is needed and advice with online matters. **Key Vocab: respect, communicate, unkind, internet safety ,devices, online, kind, internet, online safety**	Skills: • To explain what online information is • **know what is safe to share online.** • I know who to talk to if something is shared that makes me feel sad or worried. **Key Vocab: offline, online, information, private, safe, trusted adult**
CORE UNIT QUESTION Using a Computer Computing systems and networks **Lesson 2: Keyboards** **Objective:** To learn what a keyboard is and how to locate relevant keys Skills • Spell words by identifying the sounds and then writing the sound with letter/s. • Link the number symbol (numeral) with its cardinal number value. • Playing and exploring • Active learning **Key Vocab : Monitor, Computer tower, Keyboard, Mouse** **Lesson 3: Logging in and out** **Objective:** To learn what a keyboard is and how to locate relevant keys. Skills • To learn how to log in and log out. • To understand why we need to log in and out. • Spell words by identifying the sounds and then writing the sound with letter/s • Re-read what they have written to check that it makes sense. • Active learning **Key Vocab : login, logout, keyboard** **Lesson 4: Mouse Control (track pad)** **Objective:** To learn what a mouse is and to develop basic mouse skills such as moving and clicking. Skills • To use a simple online paint tool to create digital art. • Develop their small motor skills so that they can use a range of tools competently, safely and confidently • Active learning	Recap activity https://www.educaplay.com/learning-resources/15610644-reception_recap_parts_of_the_computer.html **CORE UNIT QUESTION Improving Mouse Skills Computing systems and networks** **Lesson 2: Logging In** **Objective: To log in to a computer and access a website** ***National Curriculum*** • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content* • *Recognise common uses of information technology beyond school* • *Use technology safely and respectfully, keeping personal information private'* Skills • To recognise what we mean by a computer • to understand why we need to log in to a computer • to log in and out of a computer account **Key Vocab: l**og in, log off, mouse, click, screen, account, sketchpad, tools, eraser, explore, **login,** computer, mouse pointer, keyboard, password, software, clipart, brushes, predict, explai**n** **Lesson 3: Click and Drag** **Objective: To develop mouse skills** ***National Curriculum*** • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content* • *Recognise common uses of information technology beyond school* • *Use technology safely and respectfully, keeping personal information private'* Skills • To navigate a computer using a mouse/ trackpad • To understand what we mean by 'click and drag' • To use the fill and stamp tools in Sketch pad or paint **Key Vocab:** drag, digital photograph, undo, ctrl, log in, log off, mouse, keyboard, password, software, clipart, brushes, predict, explain, click, digital art, duplicate, snap tools, login, computer, mouse pointer, screen, account, Sketchpad, paint, tools, eraser, explore	Recap activity https://www.educaplay.com/learning-resources/15635995-digital_imagery_recap.html **CORE UNIT QUESTION What is a Computer? Computing Systems and Networks** **Lesson 2: Computer Parts** **Objective: To recognise the parts of a computer** ***National Curriculum*** • *Recognise common uses of information technology beyond school* • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content'* Skills: • To name parts of the computer • To explain the purpose of different computer parts • To explain that a keyboard contains lots of buttons **Key Vocab:** computer, desktop, laptop, mouse, monitor buttons, trackpad **Lesson 3: Inputs** **Objective: To recognise how technology is controlled** ***National Curriculum*** • *Use logical reasoning to predict the behaviour of simple programs* • *Recognise common uses of information technology beyond school* Skills: • I know that people control technology • I know that technology follows instructions • I can predict what technology will do **Key Vocab:** input, output, robot, device, technology **Lesson 4: Real World Role Play** **Objective: To understand the role of computers** ***National Curriculum*** • *Recognise common uses of information technology beyond school* • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content'* Skills:

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Key Vocab : left-click, mouse, track pad **Lesson 5: Mouse Control Clicking** **Objective:** To learn what a mouse is and to develop basic mouse skills such as moving and clicking <u>Skills</u> • To use a simple online paint tool to create digital art • Develop their small motor skills so that they can use a range of tools competently, safely and confidently • Playing and exploring • Active learning **Key Vocab : left- click, track pad,** **Lesson 6: Mouse Control Clicking and Dragging** **Objective**: To learn what a mouse is and to develop basic mouse skills such as moving and clicking <u>Skills</u> • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • Playing and exploring • Active learning	**Lesson 4: Drawing Shapes** **Objective: To use mouse skills to draw and edit shapes** ***National Curriculum*** • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content* • *Recognise common uses of information technology beyond school* • *Use technology safely and respectfully, keeping personal information private'* <u>Skills</u> • To click and drag objects to change their size or position • To use a mouse to carefully position shapes • To move shapes in front of or behind each other **Key Vocab:** shape tool, background, outline, right click, menu, layers, log in, log off, mouse, track pad, keyboard, password, software, tools, fill tool, fill, drag and drop, left clcik, bring to the front, username, login, computer, mouse pointer, screen, account, Sketchpad, Paint	• to explain where computers are used • To suggest what their job is • To understand that computers work together **Key Vocab:** computer, job, technology, scanner, paying till, digital recorders, video, system
<u>**Online Relationships**</u> <u>**Lesson 1:**</u> **How can we communicate using technology?** **Objective:** • **I can recognise some ways in which the Internet can be used to communicate.** • **I can give examples of how I might use technology with people I know.** **Key Vocab : Communicate, technology.**	<u>**Self-identity and image**</u> **Lesson 1: Online emotions** **Objective: To understand different feelings when using the internet** ***Nartional Curriculum:*** • *Recognise common uses of information technology beyond school.* • *Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.* **Skills:** • • To recognise advice, to stay happy and safe on line. • To provide advice on ways to stay happy and safe on line. **Key vocab : Instructions, Computer, Internet, Connection, Predict, Internet safety, Online safety, Respect, Kind**	<u>**Privacy and Security**</u> **Lesson 1: How do I keep my things safe online?** **Objective: To know how to keep things safe and private online** ***National Curriculum*** • ***Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*** <u>Skills:</u> • To know what passwords are for • To explain how to create a strong password • To know information is private and explain how to keep this private **Key Vocab:** online, offline, online information, private, safe, trusted adult

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CORE UNIT QUESTION Programming 1 All about instructions **Lesson 2: Following Instructions** Objective: To follow instructions as part of practical activities and games Skills • Understand how to listen carefully and why listening is important • ELG: Self-regulation: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions. • Active learning **Key Vocab: instructions,** **Lesson 3: Giving Instructions** Objective: To follow instructions as part of practical activities and games Skills Articulate their ideas and thoughts in well-formed sentences. • • Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen• • Build constructive and respectful relationships. • ELG: Self-regulation: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions • ELG: Managing self: Be confident to try new activities and show independence, resilience and perseverance in the face of challenge • ELG: Building relationships: Work and play cooperatively and take turns with others • Active learning • Creating and thinking critically **Key Vocab: turn left, turn right, under, straight on , forwards, backwards** **Lesson 4: Dressing up Instructions** Objective: To follow instructions as part of practical activities and games Skills • To learn to give simple instructions	Recap activity https://www.educaplay.com/learning-resources/15635970-computer_hardware.html **CORE UNIT QUESTION Programming 1 Algorithms unplugged** **Lesson 2: What is an algorithm?** **Objective: To understand what an algorithm is.** ***National Curriculum*** • *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'* Skills: • To explain that an algorithm is a set of instructions • To know that these instructions sometimes need to be carried out in order • To know there is more than one way to solve a problem **Key Vocab:** algorithm, computer, order, specific, instructions, tasks, instructions, solution **Lesson 3: Algorithm Pictures** **Objective: To follow instructions precisely to carry out an action** ***National Curriculum*** • *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'* Skills : • To explain why an algorithm must be clear and precise • To explain the problems a robot can have following our instructions **Key Vocab:** algorithm, bug, instructions **Lesson 4: Step by Step** **Objective: To understand and be able to explain what decomposition is.** ***National Curriculum*** • *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'* Skills: • **To explain what decomposition is** • **To understand how decomposition allows you solve a problem more easily** • **To explain how we use decomposition in our everyday lives** **Key Vocab:** decompose, manageable, problem, decomposition, organising, chunks	Recap activity https://www.educaplay.com/learning-resources/15635991-part_of_the_computer.html **CORE UNIT QUESTION Programming 1 Algorithms and debugging** **Lesson 2: Dinosaur Algorithm** **Objective: To decompose a game to predict the algorithms used** ***National Curriculum*** • ***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* Skills: • To understand what the terms 'decomposition' and 'algorithm' mean. • to decompose a game to predict algorithms. • To plan algorithms for a more complex game. **Key Vocab :** algorithm, decomposition **Lesson 3: Machine Learning** **Objective: To understand that computers Can use algorithms to make predictions** ***National Curriculum*** • *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'* Skills: • To explain what an algorithm is. • to explain that computers use algorithms to make predictions. • To write a clear and precise algorithm **Key Vocab :** algorithm, data, artificial intelligence **Lesson 4: Making Maps** **Objective: To understand what abstraction is.** ***National Curriculum*** • *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* Skills :

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• Articulate their ideas and thoughts in well-formed sentences. • Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. • Build constructive and respectful relationships. • ELG: Self-regulation: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions • ELG: Building relationships: Work and play cooperatively and take turns with others • Active learning • Creating and thinking critically **Key Vocab : instructions, algorithm** **Lesson 5: Debugging Instructions** Objective: To follow instructions as part of practical activities and games and to learn to debug when things go wrong <u>Skills</u> • To follow instructions as part of practical activities and games and to learn to debug when things go wrong • To learn to give simple instructions • To learn that an algorithm is a set of instructions to carry out a task, in a specific order • Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. • ELG: Self-regulation: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions. • Know and talk about the different factors that support their overall health and wellbeing • Further develop the skills they need to manage the school day successfully • Active learning • Creating and thinking critically **Key Vocab : algorithm, problem, bug, debug,** **Lesson 6: Predictions**	**Lesson 5: Debugging Directions** **Objective: To know how to debug an algorithm.** ***National Curriculum*** • *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'* <u>Skills</u> • To spot bugs in algorithms • To fix the error (debug it) and explain the problem it caused **Key Vocab:** algorithm, bug, code, directions, debug, correct	• To explain what abstraction is • To give an example of when abstraction might be useful **Key Vocab:** abstraction, unnecessary, zoomed in, key features **Lesson 5: Unplugged Debugging** **Objective: To understand what debugging is** ***National Curriculum*** • *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* <u>Skills:</u> • understand the meaning of the word 'debugging' • I can listen to my peer's verbal instructions • I can perform a task by following step-by-step instructions **Key Vocab:** debugging, bus, error, correcting

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Objective: To learn how to explore and tinker with hardware to develop familiarity and introduce relevant vocabulary Skills • Describe events in some detail. • Active learning • Creating and thinking critically **Key Vocab : sequence, order, first, second, third, last**		
Online Reputation **Lesson 7: Technology, can we connect to the internet with it or not?** **Objective: I can identify ways that I can put information on the internet** **Key Vocab :Technology, internet, connect**	**Self-image and identity, Online Relationships, Online Bullying** **Lesson 6: Always be Kind and Considerate** **Objective: To understand how to treat others, both online and in-person** ***National Curriculum*** • *recognise common uses of information technology beyond school* • *use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.* **Skills :** • To recall the top tips using the Internet safely. • **To recognise how actions on the Internet can affect others.** • **To understand the ways to use the top tips to be in control of my actions went on the Internet.** **Key Vocab : Instructions, Computer, Internet, Connection, Predict, Internet safety, Online safety, Respect, Kind**	**Online Relationships** **Lesson 6: Who should I ask?** **Objective: To explain what should be done before sharing information online** ***National Curriculum*** • ***Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact*** Skills: • To understand why you need to ask permission • To explain who to ask permission from before sharing content online • To explain people's feeling if sharing things online without their permission. **Key Vocab: content, permission, share**

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Online Bullying **Lesson 1: How can people be unkind online and how does it make you feel?** • **Objective: I can describe ways that some people can be unkind online.** • **I can offer examples of how this can make others feel.** **Key Vocab : unkind, worry, sad, nervous, embarrassed, upset**	**Lesson 1: Posting and sharing online** **Objective: To understand the importance of being careful about what we post and share online** ***National Curriculum*** • ***re****cognise common uses of information technology beyond school* • *use technology safely and respectfully, keeping personal information private; Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.* **Skills:** • To understand the meaning of sharing and posting information online. • To understand what digital footprint means. • To recognise the information types of my own digital footprint. **Key Vocab : Instructions, Computer, Internet Connection, Predict, Internet safety Online safety, Respect, Digital footprint**	**Online Relationships** **Lesson 1: It's my choice** **Objective: To explain why I have the right to say no and deny permission** ***National Curriculum*** • ***Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*** Skills • **explain why I have the right to say no** • I know who to ask for help if I am unsure or feel pressure to do something • I can explain why I need to ask a trusted adult before clicking 'accept' **Key Vocab:** permission, denying permission, trusted adult, accepting, private information, content
CORE UNIT QUESTION Programming 2 **Lesson 2: Understanding Arrows** **Objective:** To understand the meaning of directional arrows To follow a simple sequence of instructions **Skills** • To follow a simple sequence of instructions • Be confident to try new activities and show independence, resilience and perseverance in the face of challenge • Playing and exploring • Active learning • Creating and thinking critically **Key Vocab: I**nstructions, forwards, backwards, left, right, **Lesson 3: Introducing the Bee Bot** **Objective:** To experiment with programming a Bee-bot/Blue-bot Skills • To explore and tinker with hardware to develop familiarity and introduce relevant vocabulary • ELG: Managing self: Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Count objects, actions and sounds. • Playing and exploring • Active learning	Recap activity- https://www.educaplay.com/learning-resources/15624033-online_safety.html **CORE UNIT QUESTION Creating Media Digital Imagery** **Lesson 2: Planning a Photo Story** **Objective: To understand and create a sequence of pictures.** ***National Curriculum*** • *Use logical reasoning to predict the behaviour of simple programs.* • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content.* Skills • To explain what is happening in a photo story • To recognise the importance of sequencing • To plan their own photo story • To know that sequencing is important in Computing **Key Vocab:** image, picture, photograph **Lesson 3: Taking Photos** **Objective: To Take Clear Photos** ***National Curriculum*** • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content.* • *Recognise common uses of Information technology beyond school.* Skills • To get down to level of the character • To look at the screen and check what is in the frame • To press the button carefully to ensure nothing changes	Recap activity- https://www.educaplay.com/learning-resources/15636002-representing_data.html **CORE UNIT QUESTION Data Handling - International Space Station** **Lesson 2: Homes in Space** **Objective: To understand how computers can help humans to survive in space** ***National Curriculum*** • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content.* Skills: • To consider human survival needs. • To retrieve digital content from an interactive map. • to consider how a computer is used to monitor data relating to human survival needs. **Key Vocab:** digital content, interactive map, Internation Space Station, satellite, space, survival **Lesson 3: Warmer, Colder** **Objective: To understand the role of sensors on The ISS** ***National Curriculum*** • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content.* Skills: • to read temperatures using a thermometer. • To understand that sensors monitor the ISS to make sure the astronauts

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• Creating and thinking critically **Key Vocab : f**orward, backward, left, right **Lesson 4: Simple Bee Bot Programming** **Objective: T**o experiment with programming a Bee-bot/Blue-bot and to learn how to give simple commands Skills • ELG: Managing self: Be confident to try new activities and show independence, resilience and perseverance in the face of challenge • Count objects, actions and sound • Link the number symbol (numeral) with its cardinal number value • Count beyond ten • Playing and exploring • Active learning • Creating and thinking critically **Key Vocab :** sequence **Lesson 5: Understanding Algorithms** **Objective:** To learn that an algorithm is a set of instructions to carry out a task, in a specific order Skills • To follow an algorithm as part of an unplugged game • To learn to debug instructions, with the help of an adult, • when things go wrong • ELG: Managing self: Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Count objects, actions and sounds. • Link the number symbol (numeral) with its cardinal number value • Count beyond ten. • Playing and exploring • Active learning • Creating and thinking critically **Key Vocab: algortihm, order, instructions**	• To ensure the surroundings are bright enough • To identify that moving can create a blurred image **Key Vocab:** camera, delete, photograph, image **Lesson 4: Editing photos** **Objective: To edit photos** ***National Curriculum*** • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content.* • *Recognise common uses of Information technology beyond school.* Skills: • To explain that photos can be changed after they have been taken • To identify ways to improve a photo • To crop, resize and add a colour filter to a photo **Key Vocab:** camera, crop, edit, editing software, image	are safe and healthy. • To design a display to show the data that the sensors collect. **Key Vocab:** air conditioning, ammonia, astronaut, crew, data, insulation, monitor, sensor, temperature, thermometer, urine, waste water **Lesson 4: Goldilocks Planets** **Objective: Interpreting data** ***National Curriculum*** • *Use technology purposefully to create, organise, store, manipulate and retrieve digital content.* Skills: • I know that water is very important to life on Earth. • I can interpret data. • I can identify temperatures within a range to decide if they are a Goldilocks planet. **Key Vocab :** data, Goldilocks Zone, interpret, temperature
Managing Online Information **Lesson 6: What devices can I use to access the internet and to find out information?** **Objective:**	**Managing Online Information** **Lesson 6: Where, and how, who and why?** **Objective: To give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching**	**Online Relationships** **Lesson 6: Is it true?**

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• **I can talk about how to use the Internet as a way of finding information online.** • **I can identify devices I could use to access information on the Internet.** **Key Vocab: device, internet**	***National Curriculum*** • *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.* • *recognise common uses of information technology beyond school* Skills: • give simple examples of how to find information (e.g. search engine, voice activated searching). • I can use the internet to find things out. **Key Vocab: information, search engine, voice activated**	**Objective: To learn strategies that will help me decide if something I see online is true or not** ***National Curriculum*** • ***Use technology safely, respectfully and responsibly; recognise Acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*** Skills: • To explain the difference between things that are 'imaginary', 'made up' or 'make believe' and those that are true or real • I can explain why some information I find online may not be true • I can explain why people may post things online that are not true **Key Vocab:** reliable, edit, images, pop ups
Privacy and Security **Lesson 1: What is your personal information?** **Objective:** • **I can identify some simple examples of my personal information EG name, address, birthday, age, location.** • **I can describe who would be trustworthy to share this information with.** • **I can explain why they are trusted.** **Key Vocab: Personal information. Location, Fact, Private.**	**Privacy and Security** **Lesson 1: Why do I need a password?** **Objective:** • **I can explain how passwords are used to protect information, accounts and devices.** ***National Curriculum*** • ***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.*** Skills: • **Understand how passwords and PINs keep devices and information secure.** • **Recognise some examples of strong and poor password practice.** **Key Vocab: password, information, safe, security**	**Managing Online Information** **Lesson 1: Keyword Captain** **Objective:** • **To use simple keywords in search engines** ***National Curriculum*** • *use technology purposefully to create, organise, store, manipulate and retrieve digital content* Skills: • To use keywords in a search engine • To describe and demonstrate how to get help from a trusted adult or helpline if I find content that makes me feel sad, uncomfortable, worried, or frightened • To demonstrate how to navigate a simple webpage to get to information I need (e.g. Home, forward, back buttons, links, tabs and sections) **Key Vocab:** search engine, keyword, trusted adult.
CORE UNIT QUESTION : Introduction to DataData Handling	Recap activity https://www.educaplay.com/learning-resources/15635956-algorithms_key_word_recap.html **CORE UNIT QUESTION Programming 2 – Programming Bee-Bot**	Recap activity - https://www.educaplay.com/learning-resources/15635956-algorithms_key_word_recap.html **CORE UNIT QUESTION Scratch Junior programming 2**

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Lesson 2: Loose Parts Play
Objective: To understand how to sort and categorise objects.

Skills
- To explain how items have been sorted and categorised
- Articulate their ideas and thoughts in well-formed sentences
- Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen
- Count objects, actions and sounds
- Subitise
- Count beyond ten
- Compare numbers
- Understand the 'one more than/one less than' relationship between consecutive numbers
- Continue, copy and create repeating patterns
- Compare length, weight and capacity
- Playing and exploring
- Active learning
- Creating and thinking critically

Key Vocab: sort, categorised, problem

Lesson 3: Sorting Ourselves
Objective: To understand how to sort and categorise objects.

Skills
- To explain how items have been sorted and categorised
- Articulate their ideas and thoughts in well-formed sentences
- Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen
- ELG: Listening, attention and understanding: Make comments about what they have heard and ask questions to clarify their understanding
- ELG: Speaking: Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.
- Count objects, actions and sounds
- Subitise
- Count beyond ten
- Compare numbers
- Understand the 'one more than/one less than' relationship between consecutive numbers
- Continue, copy and create repeating patterns
- Compare length, weight and capacity
- Playing and exploring
- Active learning

Lesson 2: Getting to know a virtual device
Objective: To explore a new device

National Curriculum
- ***Use logical reasoning to predict the behaviour of simple programs.***
- ***Create and debug simple programs.***

Skills:
- **to 'tinker' with the buttons of a Bee-Bot to see what they do**
- **to complete a cycle of predict, test and review**

Key Vocab: algorithm, Bee-Bot, code, emulator, instructions, tinker

Lesson 3: Precise instructions
Objective: To plan and follow a precise set of instructions.

National Curriculum
- ***Understand what algorithms are, how they are implemented as programs on digital devices and that programs execute by following precise and unambiguous instructions.***

Skills:
- **To follow verbal instructions**
- **To give precise instructions**
- **To check that the instructions being given are correct**

Key Vocab: algorithm, Bee-Bot, explain, explore, instructions, precise, video

Lesson 4: Bee-Bot world virtual
Objective: to program a device

National Curriculum
- ***Create and debug simple programs***

Skills:
- **To personalise a Bee-Bot world**
- **To consider how the Bee-Bot model can move from one place to another**
- **To plana Bee-Bot route**
- **To program a Bee-Bot model to follow a planned route**

Key Vocab: Bee-Bot, code, program

Lesson 5: Bee-Bot adventure
Objective: To create a program that tells a story

National Curriculum
- ***Create and debug simple programs***

Skills
- To give Bee-Bot clear instructions
- To debug instructions if they go wrong by identifying and correcting the mistake

Lesson 2: Using Scratch Jr
Objective: To explore a new application

National Curriculum
- *Use logical reasoning to predict the behaviour of simple programs.*
- *Create and debug simple programs.*

Skills:
- To predict what something new will do.
- To explore something independently.
- to explain what I found using ScratchJr.

Key Vocab: block, code, Scratch Jr

Lesson 3: Creating an animation
Objective: To create an animation

National Curriculum
- *Use logical reasoning to predict the behaviour of simple programs.*
- *Create and debug simple programs.*

Skills:
- I can use the programming blocks for a purpose.
- I can recognise a loop in programming.
- I can think about how animals move.
- I can use my programming skills to represent an animal moving.

Key Vocab: animation, code, loop, repeat

Lesson 4: Programming a joke
Objective: To follow an algorithm

National Curriculum
- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
- Use logical reasoning to predict the behaviour of simple programs.
- Create and debug simple programs.

Skills:
- I can use an algorithm to help with my programming.
- I can sequence the blocks appropriately.
- I can explain what each block in the program does.

Key Vocab: algorithm, block, code, loop, sequence

Lesson 5: The three little pigs algorithm
Objective: To plan and use code to create an algorithm.

National Curriculum
- *Understand what algorithms are; how they are implemented as*

programs on digital devices; and that programs execute by following

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• Creating and thinking critically **Key Vocab:** question, sort, problem **Lesson 4: Yes or No** **Objective: To understand how to sort and categorise objects.** Skills • To explain how items have been sorted and categorised. • Articulate their ideas and thoughts in well-formed sentences • Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen • ELG: Listening, attention and understanding: Make comments about what they have heard and ask questions to clarify their understanding • Listening, attention and understanding: Make comments about what they have heard and ask questions to clarify their understanding. • ELG: Listening, attention and understanding: Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions • ELG: Speaking: Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. • Count objects, actions and sounds • Subitise • Count beyond ten • Compare numbers • the 'one more than/one less than' relationship between consecutive numbers • Continue, copy and create repeating patterns • Compare length, weight and capacity • Playing and exploring • Active learning • Creating and thinking critically **Key Vocab:** sort, categorise, question **Lesson 5: Creating a Branch Database** **Objective:** To understand how to sort and categorise objects Skills • To explain how items have been sorted and categorised • To explore and understand the concept of branch databases • To explore and understand the concept of branch databases	**Key Vocab**: algorithm, Bee-Bot, code, debug, program	*precise and unambiguous instructions.* • *Create and debug simple programs.* Skills: • To explain what an algorithm is. • To choose the code to match an algorithm • To use an algorithm to write a computer program **Key Vocab :** algorithm, code, program

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• ELG: Listening, attention and understanding: Make comments about what they have heard and ask questions to clarify their understanding. • ELG: Listening, attention and understanding: Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions. • Count objects, actions and sounds • Compare numbers • Active learning • Creating and thinking critically **Key Vocab:** branch database, data, pictogram		