



## Our Global Explorer Curriculum St Nicholas Primary Computing Progression Grid

At St Nicholas' CE VA Primary School we aim to ensure that all children leave prepared for the world as 'Global Explorers', equipped to pursue any career they choose. Being 'skilful' is one of the core strands to our curriculum. It is important that all children leave having developed skills and knowledge in computing, which will in turn enable them to access and use technology across all areas of their learning. We aim for children to feel fully empowered in this digital age, with a strong fundamental understanding of word processing, internet research, communication and programming. We want every child to be successful and encourage children to explore and go beyond when they are using technology.

Key Stage 1 National Curriculum Expectations	Key Stage 2 National Curriculum Expectations
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions;</li> <li>• create and debug simple programs;</li> <li>• use logical reasoning to predict the behaviour of simple programs;</li> <li>• use technology purposefully to create, organise, store, manipulate and retrieve digital content;</li> <li>• recognise common uses of information technology beyond school;</li> <li>• 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.</li> </ul>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts;</li> <li>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output;</li> <li>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs;</li> <li>• understand computer networks including the internet; how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration;</li> <li>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content;</li> <li>• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information;</li> <li>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li> </ul>

### Key Concepts

Creative Technology	Digital Literacy	Computer Science
Multimedia Text and Images Multimedia Sound and Motion	Handling Data Online Safety	Coding and programming Technology in our lives

<b>Key Concepts – KS1</b>	<b>Year 1</b>
<b>Creative Technology</b>	
<p>I can learn to switch on and shut down a computer.</p> <p>I can learn how to use a trackpad.</p> <p>I can use trackpad skills to launch applications.</p> <p>I can save, retrieve and organise work.</p> <p>I can add text strings, text boxes and show and hide objects and images, manipulating the features.</p> <p>I can use various tools, such as brushes, pens, eraser, stamps and shapes, and set the size, colour and shape.</p> <p>I can use applications and devices in order to communicate ideas, work, messages and demonstrate control.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: paint, colour, brush, tools, settings, undo, redo, text, image, size, poster, launch, application, software, window, minimise, restore, size, move, screen, close, click, drag, log on, log off, keyboards, keys, mouse, click, button, double click, drag, present.</p> <p>I can use software to record sounds.</p> <p>I can change sounds recorded.</p> <p>I can save, retrieve and organise work.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: commands, add sound.</p>	<p><b>Term 1 – Computer skills</b></p> <p><b>Key Concept: Creative Technology</b></p> <p>To be able to turn on and off a computer.</p> <p>To use a trackpad to open applications.</p> <p>To save files and folders.</p> <p><b>Key Question: How can I turn on and off a computer?</b></p> <p><b>Term 2 – Online Safety</b></p> <p><b>Key Concept: Digital Literacy</b></p> <p>To be able open a web browser.</p> <p>To be able to recall the SMART rules for internet safety.</p> <p>To be able to recognise which personal information they should keep safe from strangers.</p> <p>To know who to tell if someone online asks for personal information.</p> <p><b>Key Question: What does SMART stand for?</b></p>
<b>Digital Literacy</b>	
<p>I can identify what things count as personal information.</p> <p>I can identify what is appropriate and inappropriate behaviour on the internet.</p> <p>I can agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords.</p> <p>I can seek help from an adult when they see something that is unexpected or worrying.</p> <p>I can demonstrate how to safely open and close applications and log on and log off from websites.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, key, question, tell, safe, share, stranger, danger, internet.</p>	<p><b>Term 3 – Painting</b></p> <p><b>Key Concept: Creative Technology</b></p> <p>To be able to use a painting programme to paint with different colours.</p> <p>To be able to use a painting programme to paint with different brushes.</p> <p>To be able to undo and redo.</p> <p>To be able to format text and images.</p> <p><b>Key Question: Which colour did you prefer when painting?</b></p>
<b>Computer Science</b>	
<p>I can give commands one at a time to control direction and movement, including straight, forwards, backwards, turn.</p> <p>I can control the nature of events: repeat, loops, single events and add and delete features.</p> <p>I can give a set of instructions to follow and predict what will happen.</p> <p>I can improve/change their sequence of commands by debugging.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink.</p> <p>I can recognise ways that technology is used in the home and community, e.g. taking photos, blogs, shopping.</p> <p>I can use links to websites to find information.</p> <p>I can recognise age-appropriate websites.</p> <p>I can use safe search filters.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, internet, subject, address, communicate, sender, safe, secure.</p>	<p><b>Term 4 – Programming toys</b></p> <p><b>Key Concept: Computer Science</b></p> <p>To be able to say what an algorithm is.</p> <p>To be able to check their work for mistakes (debug).</p> <p>To be able to programme a beebot.</p> <p><b>Key Question: How can I programme a beebot?</b></p> <p><b>Term 5 – Programming with Scratch</b></p> <p><b>Key Concept: Computer Science</b></p> <p>To be able to use different end blocks, including repeat forever.</p> <p>To be able to change the size of characters.</p> <p>To be able to hide and show characters with an instruction block.</p> <p><b>Key Question: Can you create a character that changes size?</b></p> <p><b>Term 6 – Word Processing Skills</b></p> <p><b>Key Concept: Creative Technology</b></p> <p>To be able to save work in a folder.</p> <p>To be able to edit text using backspace, delete and arrow keys.</p> <p>To be able to format the font.</p> <p><b>Key Question: How can I create and change text?</b></p>

<b>Key Concepts – KS1</b>	<b>Year 2</b>
<b>Creative Technology</b>	
<p>I can add text strings, text boxes and show and hide objects and images, manipulating the features.</p> <p>I can use various tools, such as brushes, pens, eraser, stamps and shapes, and set the size, colour and shape.</p> <p>I can use applications and devices in order to communicate ideas, work, messages and demonstrate control.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: paint, colour, brush, tools, settings, undo, redo, text, image, size, poster, launch, application, software, window, minimise, restore, size, move, screen, close, click, drag, log on, log off, keyboards, keys, mouse, click, button, double click, drag, present.</p> <p>I can use software to record sounds.</p> <p>I can change sounds recorded.</p> <p>I can save, retrieve and organise work.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: commands, add sound.</p>	<p><b>Term 1 – Online Safety</b>  <b>Key Concept: Digital Literacy/Computer Science</b>  To know how people can use the information they put on online.  To know how to use keywords to give better search results.  To safely search for information online.  To identify possible dangers online.  To know when and how to ask an adult for advice about accessing a website.  <b>Key Question: How can I stay safe online?</b></p> <p><b>Term 2 – Computer Art</b>  <b>Key Concept: Creative Technology</b>  To recreate a piece of art using a computer program.  To manipulate shapes and objects to recreate an art style.  <b>Key Question: How can I create digital art?</b></p>
<b>Digital Literacy</b>	
<p>I can identify what things count as personal information.</p> <p>I can identify what is appropriate and inappropriate behaviour on the internet.</p> <p>I can agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords.</p> <p>I can seek help from an adult when they see something that is unexpected or worrying.</p> <p>I can demonstrate how to safely open and close applications and log on and log off from websites.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, key, question, tell, safe, share, stranger, danger, internet.</p>	<p><b>Term 3 – Using the Internet</b>  <b>Key Concept: Computer Science</b>  To identify search results that will give useful information.  To know where to find the address of a link.  <b>Key Question: How can I find information using the internet?</b></p> <p><b>Term 4 – Presentation Skills</b>  <b>Key Concept: Creative Technology</b>  To create folders.  To save files in an organised folder structure.  To print files.  To add images.  To format text and text boxes.  <b>Key Question: How can I use a computer to create a presentation?</b></p>
<b>Computer Science</b>	
<p>I can give commands one at a time to control direction and movement, including straight, forwards, backwards, turn.</p> <p>I can control the nature of events: repeat, loops, single events and add and delete features.</p> <p>I can give a set of instructions to follow and predict what will happen.</p> <p>I can improve/change their sequence of commands by debugging.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink.</p> <p>I can recognise ways that technology is used in the home and community, e.g. taking photos, blogs, shopping.</p> <p>I can use links to websites to find information.</p> <p>I can recognise age-appropriate websites.</p> <p>I can use safe search filters.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, internet, subject, address, communicate, sender, safe, secure.</p>	<p><b>Term 5 – Preparing for Turtle Logo</b>  <b>Key Concept: Computing Science</b>  To turn accurately 90°.  To walk squares and rectangles.  To give and follow instructions.  <b>Key Question: How can I create algorithms?</b></p> <p><b>Term 6 – Programming Turtle Logo and Scratch</b>  <b>Key Concept: Computing Science</b>  To turn the turtle 90°.  To create simple algorithms using a number of different blocks.  To use the repeat and green flag blocks to control algorithms.  <b>Key Question: How can I use algorithms to move an object?</b></p>

Key Concepts – LKS2	Year 3
<b>Creative Technology</b>	
<p>I can create different effects with different technological tools, demonstrating control.</p> <p>I can use appropriate keyboard commands to amend text on a device.</p> <p>I can use applications and devices in order to communicate ideas, work, and messages.</p> <p>I can save, retrieve and evaluate work, making amendments.</p> <p>I can insert a picture/text/graph/hyperlink from the internet or a personal file.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, plan, link, image, object, link, hyperlink, minimise, restore, size, move, screen, split, create, organise, file, folder, close, exit, search, print, password, screenshot, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck.</p> <p>I can use software to record, create and edit sounds and capture still images.</p> <p>I can change recorded sounds, volume, duration and pauses.</p> <p>I can use software to capture video for a purpose.</p> <p>I can crop and arrange clips to create a short film.</p> <p>I can plan an animation and move items within each animation for playback.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: audio, sound, video, movie, embed, link, file format, animate, animation, still image, thaumatrope, zoetrope, zoopraxiscope, stereoscope, flip book, frame, onion skinning, loop, frame rate, record, stop, play, stop motion, stop frame.</p>	<p><b>Term 1 – Online Safety</b>  <b>Key Concept: Digital Literacy</b>  To recognise and define cyberbullying.  To create a strong password, explaining why it is important.  To explain what privacy settings are and how to use them safely.  To know how to safely send and receive emails.  <b>Key Question: How can I communicate using the internet?</b></p> <p><b>Term 2 – Internet Research and Communication</b>  <b>Key Concept: Computer Science</b>  To identify which word order gives the better results when searching online.  To share a webpage with others.  To know how to bookmark a page.  <b>Key Question: How can I find information quickly online?</b></p> <p><b>Term 3 – Word Processing</b>  <b>Key Concept: Creative Technology</b>  To cut, copy and paste text.  To format the font.  To insert images.  To use &lt;ctrl&gt; keyboard shortcuts.  <b>Key Question: How can I build my word processing skills?</b></p> <p><b>Term 4 – Presentation Skills</b>  <b>Key Concept: Creative Technology</b>  To use slide transitions.  To insert audio and video files  To create simple slide templates.  To copy and organise slides as required.  <b>Key Question: How can I create an informative presentation?</b></p> <p><b>Term 5 – Programming Turtle Logo and Scratch</b>  <b>Key Concept: Computer Science</b>  To create and debug algorithms to draw regular polygons using repeat command.  To draw shapes with spaces between using penup and pendown (Turtle Logo)  To change and alter the pen settings (scratch).  <b>Key Question: How can I develop my programming skills?</b></p> <p><b>Term 6 – Drawing and Desktop Publishing</b>  <b>Key Concept: Creative Technology</b>  To draw objects.  To order and group objects  To move, resize and arrange text boxes and images.  <b>Key Question: How can I create and publish a piece of learning?</b></p>
<b>Digital Literacy</b>	
<p>I can talk about the different ways data can be organized.</p> <p>I can sort and organise information to use in other ways.</p> <p>I can search a ready-made database to answer questions.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: Google Docs, insert, table.</p> <p>I can reflect on their own digital footprint and behaviour online.</p> <p>I can identify what is appropriate and inappropriate behaviour on the internet, recognising the term cyberbullying;</p> <p>I can agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords;</p> <p>I can seek help from an adult when they see something that is unexpected or worrying;</p> <p>I can demonstrate understanding of age-appropriate websites and adverts;</p> <p>use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public.</p>	
<b>Computer Science</b>	
<p>I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts.</p> <p>I can a program, putting commands into a sequence to achieve a specific outcome.</p> <p>I can give a set of instructions to follow and predict what will happen.</p> <p>I can test a program and recognise when it needs to be debugged.</p> <p>I can use variables to create an effect, e.g. repetition, if, when, loop.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable.</p> <p>I can explain ways to communicate with others online.</p> <p>I can describe the world wide web as the part of the internet that contains websites.</p> <p>I can add websites to a favourites list.</p> <p>I can use search tools to find and use an appropriate website and content.</p> <p>I can use strategies to improve results when searching online.</p> <p>To use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media.</p>	

Key Concepts – LKS2	Fox Year A
<b>Creative Technology</b>	<b>Term 1 – Online Safety</b>
<p>I can create different effects with different technological tools, demonstrating control.</p> <p>I can use appropriate keyboard commands to amend text on a device.</p> <p>I can use applications and devices in order to communicate ideas, work, and messages.</p> <p>I can save, retrieve and evaluate work, making amendments.</p> <p>I can insert a picture/text/graph/hyperlink from the internet or a personal file.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, plan, link, image, object, link, hyperlink, minimise, restore, size, move, screen, split, create, organise, file, folder, close, exit, search, print, password, screenshot, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck.</p> <p>I can use software to record, create and edit sounds and capture still images.</p> <p>I can change recorded sounds, volume, duration and pauses.</p> <p>I can use software to capture video for a purpose.</p> <p>I can crop and arrange clips to create a short film.</p> <p>I can plan an animation and move items within each animation for playback.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: audio, sound, video, movie, embed, link, file format, animate, animation, still image, thaumatrope, zoetrope, zoopraxiscope, stereoscope, flip book, frame, onion skinning, loop, frame rate, record, stop, play, stop motion, stop frame.</p>	<p><b>Key Concept: Digital Literacy</b></p> <p>To edit their own messages and comments to make sure they are kind.</p> <p>To identify comments or message that may be hurtful to others.</p> <p>To understand that search results are ranked.</p> <p>To explain why it might be dangerous to share private information.</p> <p><b>Key Question: How can I gain a deeper understanding of Online Safety?</b></p>
<b>Digital Literacy</b>	<p><b>Term 2 – Animation</b></p> <p><b>Key Concept: Creative Technology</b></p> <p>To describe one or more traditional methods of animation.</p> <p>To use a time slider to find a specific point in a film clip to insert or edit an object.</p> <p>To edit and refine images in a stop motion animation short film.</p> <p><b>Key Question: How can I create my own animation?</b></p>
<p>I can talk about the different ways data can be organized.</p> <p>I can sort and organise information to use in other ways.</p> <p>I can search a ready-made database to answer questions.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: Google Docs, insert, table.</p> <p>I can reflect on their own digital footprint and behaviour online.</p> <p>I can identify what is appropriate and inappropriate behaviour on the internet, recognising the term cyberbullying;</p> <p>I can agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords;</p> <p>I can seek help from an adult when they see something that is unexpected or worrying;</p> <p>I can demonstrate understanding of age-appropriate websites and adverts;</p> <p>use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public.</p>	<p><b>Term 3 – Programming Turtle Logo</b></p> <p><b>Key Concept: Computer Science</b></p> <p>To change the colour of the pen.</p> <p>To draw shapes using setpos or setxy.</p> <p>To be able to fill shapes in different colours.</p> <p>To draw arcs of different sizes.</p> <p><b>Key Question: How can I debug an algorithm to correct errors?</b></p>
<b>Computer Science</b>	<p><b>Term 4 – Word Processing</b></p> <p><b>Key Concept: Creative Technology</b></p> <p>To use some of the main keyboard shortcuts.</p> <p>To suggest ways to improve a layout.</p> <p>To add or delete rows in a table.</p> <p>To type at an appropriate speed.</p> <p><b>Key Question: How can I insert a table into a word processing document?</b></p>
<p>I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts.</p> <p>I can a program, putting commands into a sequence to achieve a specific outcome.</p> <p>I can give a set of instructions to follow and predict what will happen.</p> <p>I can test a program and recognise when it needs to be debugged.</p> <p>I can use variables to create an effect, e.g. repetition, if, when, loop.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable.</p> <p>I can explain ways to communicate with others online.</p> <p>I can describe the world wide web as the part of the internet that contains websites.</p> <p>I can add websites to a favourites list.</p> <p>I can use search tools to find and use an appropriate website and content.</p> <p>I can use strategies to improve results when searching online.</p> <p>To use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media.</p>	<p><b>Term 5 – Scratch Questions and Quizzes</b></p> <p><b>Key Concept: Computer Science</b></p> <p>To use repetition and selection.</p> <p>To work with variables and adjust these depending on the effect they wish to create.</p> <p>To demonstrate that they understand how to combine a range of different effects to create their own quiz.</p> <p><b>Key Question: How can I begin to understand sophisticated algorithms?</b></p> <p><b>Term 6 – Using and Applying</b></p> <p><b>Key Concept: Creative Technology and Computer Science</b></p> <p>To be able to draw or design images and import them into other software.</p> <p>To be able to research and use appropriate information and images using the internet.</p> <p>To be able to use effective design and layout in a presentation.</p> <p>To be able to present information on a particular subject.</p> <p><b>Key Question: How can I use my breadth of computing knowledge to create a presentation about school?</b></p>

<b>Key Concepts – LKS2</b>	<b>Fox Year B</b>
<b>Creative Technology</b>	<b>Term 1 – Online Safety</b>
<p>I can create different effects with different technological tools, demonstrating control.</p> <p>I can use appropriate keyboard commands to amend text on a device.</p> <p>I can use applications and devices in order to communicate ideas, work, and messages.</p> <p>I can save, retrieve and evaluate work, making amendments.</p> <p>I can insert a picture/text/graph/hyperlink from the internet or a personal file.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, plan, link, image, object, link, hyperlink, minimise, restore, size, move, screen, split, create, organise, file, folder, close, exit, search, print, password, screenshot, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck.</p> <p>I can use software to record, create and edit sounds and capture still images.</p> <p>I can change recorded sounds, volume, duration and pauses.</p> <p>I can use software to capture video for a purpose.</p> <p>I can crop and arrange clips to create a short film.</p> <p>I can plan an animation and move items within each animation for playback.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: audio, sound, video, movie, embed, link, file format, animate, animation, still image, thaumatrope, zoetrope, zoopraxiscope, stereoscope, flip book, frame, onion skinning, loop, frame rate, record, stop, play, stop motion, stop frame.</p>	<p><b>Key Concept: Digital Literacy</b></p> <p>To edit their own messages and comments to make sure they are kind.</p> <p>To identify comments or message that may be hurtful to others.</p> <p>To understand that search results are ranked.</p> <p>To explain why it might be dangerous to share private information.</p> <p><b>Key Question: How can I gain a deeper understanding of Online Safety?</b></p>
<b>Digital Literacy</b>	<p><b>Term 2 – Animation</b></p> <p><b>Key Concept: Creative Technology</b></p> <p>To describe one or more traditional methods of animation.</p> <p>To use a time slider to find a specific point in a film clip to insert or edit an object.</p> <p>To edit and refine images in a stop motion animation short film.</p> <p><b>Key Question: How can I create my own animation?</b></p>
<p>I can talk about the different ways data can be organized.</p> <p>I can sort and organise information to use in other ways.</p> <p>I can search a ready-made database to answer questions.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: Google Docs, insert, table.</p> <p>I can reflect on their own digital footprint and behaviour online.</p> <p>I can identify what is appropriate and inappropriate behaviour on the internet, recognising the term cyberbullying;</p> <p>I can agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords;</p> <p>I can seek help from an adult when they see something that is unexpected or worrying;</p> <p>I can demonstrate understanding of age-appropriate websites and adverts;</p> <p>use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public.</p>	<p><b>Term 3 – Programming Turtle Logo</b></p> <p><b>Key Concept: Computer Science</b></p> <p>To change the colour of the pen.</p> <p>To draw shapes using setpos or setxy.</p> <p>To be able to fill shapes in different colours.</p> <p>To draw arcs of different sizes.</p> <p><b>Key Question: How can I debug an algorithm to correct errors?</b></p>
<b>Computer Science</b>	<p><b>Term 4 – Word Processing</b></p> <p><b>Key Concept: Creative Technology</b></p> <p>To use some of the main keyboard shortcuts.</p> <p>To suggest ways to improve a layout.</p> <p>To add or delete rows in a table.</p> <p>To type at an appropriate speed.</p> <p><b>Key Question: How can I insert a table into a word processing document?</b></p>
<p>I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts.</p> <p>I can a program, putting commands into a sequence to achieve a specific outcome.</p> <p>I can give a set of instructions to follow and predict what will happen.</p> <p>I can test a program and recognise when it needs to be debugged.</p> <p>I can use variables to create an effect, e.g. repetition, if, when, loop.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable.</p> <p>I can explain ways to communicate with others online.</p> <p>I can describe the world wide web as the part of the internet that contains websites.</p> <p>I can add websites to a favourites list.</p> <p>I can use search tools to find and use an appropriate website and content.</p> <p>I can use strategies to improve results when searching online.</p> <p>To use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media.</p>	<p><b>Term 5 - Spreadsheets</b></p> <p><b>Key Concept: Digital Literacy</b></p> <p>To enter text and numbers into a spreadsheet.</p> <p>To identify and refer to cells by row and column.</p> <p>To begin to enter formulae with the SUM function.</p> <p><b>Key Question: How can I create my own spreadsheet?</b></p> <p><b>Term 6 – Using and Applying</b></p> <p><b>Key Concept: Computer Science</b></p> <p>To design and create an original character using appropriate software.</p> <p>To use appropriate software to tell a story involving my new cartoon character.</p> <p>To use other software to create an additional description or other materials linked to my character.</p> <p>To combine software to present information about my character.</p> <p><b>Key Question: Can you create your own new cartoon character?</b></p>

<b>Key Concepts – UKS2</b>	<b>Owl Year A</b>
<b>Creative Technology</b>	
<p>I can use the skills already developed to create content using unfamiliar technology.</p> <p>I can select, use and combine the appropriate technology tools to create effect.</p> <p>I can review and improve their own work and support others to improve their work.</p> <p>I can save, retrieve and evaluate their work, making amendments.</p> <p>I can insert a picture/text/graph/hyperlink from the internet or personal file.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide.</p> <p>I can collect audio from a variety of resources including own recordings and internet clips.</p> <p>I can use a digital device to record sounds and present audio.</p> <p>I can trim, arrange and edit audio levels to improve quality.</p> <p>I can publish their animation and use a movie editing package to edit/refine and add titles.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: audio, record, edit, play stop, skip, waveform, input, output, record, edit, play podcast, digital content, downloadable, backing track, voiceover, mute, gain, production, post-production, documentary, project, evaluation, screening, ceremony, upload.</p>	<p><b>Term 1 – Online Safety</b>  <b>Key Concept: Digital Literacy</b>            To identify a spam email.            To create multiple strong passwords for use across different platforms.            To know that false photographs can make people feel bad about themselves.            To spot citations online.  <b>Key Question: Am I staying safe online?</b></p> <p><b>Term 2 – Flowol</b>  <b>Key Concept: Computer Science</b>            To create a program to control a simple sequence.            To modify symbols in a flowchart for effect.            To use decisions and subroutines.            To program inputs and outputs.  <b>Key Question: How can I use a flowchart to interpret data?</b></p>
<b>Digital Literacy</b>	
<p>I can construct data on the most appropriate application.</p> <p>I know how to interpret data, including spotting inaccurate data and comparing data.</p> <p>I can use keyboard shortcuts and functions to input data on spreadsheets and create formulas for spreadsheets.</p> <p>I can add data to an existing database;</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: Google Docs, insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending.</p> <p>I can protect their password and other personal information.</p> <p>I can be a good online citizen and friend.</p> <p>I can judge what sort of privacy settings might be relevant to reducing different risks.</p> <p>I can seek help from an adult when they see something that is unexpected or worrying.</p> <p>I can discuss scenarios involving online risk.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraud/fraudulent, policy, private/personal.</p>	<p><b>Term 3 – Radio Station</b>  <b>Key Concept: Creative Technology</b>            To record and play their own sounds in recording software.            To listen to and improve their own recordings.            To locate and download existing sound files into recording software.            To combine two or more tracks to make a new original recording.  <b>Key Question: How would I start my own radio station?</b></p> <p><b>Term 4 – 3D Modelling Sketch up</b>  <b>Key Concept: Computer Science</b>            To draw 2D shapes or lines.            To draw and manipulate 3D models independently.            To use inference points to draw lines and shapes.            To use a wide range of SketchUp tools and concepts.  <b>Key Question: How can I create my own 3D model?</b></p>
<b>Computer Science</b>	
<p>I can use external triggers and infinite loops to demonstrate control.</p> <p>I can follow a sequence of instructions, e.g. in a flowchart and modify a flowchart using symbols.</p> <p>I can use conditional statements and edit variables.</p> <p>I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.</p> <p>I can keep testing a program and recognise when it needs to be debugged.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, commentary, sequence, consequence, debug, program, Kodu, world, object, tool palette, program environment, smooth, flatten, raise.</p> <p>I can search for information using appropriate websites and advanced search functions within Google.</p> <p>I can use strategies to check the reliability of information (cross-check with another source such as books).</p> <p>I can talk about the way search results are selected and ranked.</p> <p>I can check the reliability of a website, including the photos on site.</p> <p>I can tell you about copyright and acknowledge the sources of information.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, https, site, domain, website, browser, address bar.</p>	<p><b>Term 5 – Scratch 3:0</b>  <b>Key Concept: Computer Science</b>            To move and edit blocks as part of an algorithm.            To program an algorithm as a sequence of game instructions with actions and consequences.            To add additional effects and features, such as sound.  <b>Key Question: How can I create my own game?</b></p> <p><b>Term 6 – Using and Applying</b>  <b>Key Concept: Computer Science and Creative Technology</b>            To use search engines safely and effectively to research ideas.            To use and combine appropriate software to draw and design room plans.            To use and combine software to present information in different ways.  <b>Key Question: Can you design the ultimate bedroom for a 10 year old?</b></p>

<b>Key Concepts – UKS2</b>	<b>Owl Year B</b>
<b>Creative Technology</b>	<b>Term 1 – Online Safety</b>
<p>I can use the skills already developed to create content using unfamiliar technology.</p> <p>I can select, use and combine the appropriate technology tools to create effect.</p> <p>I can review and improve their own work and support others to improve their work.</p> <p>I can save, retrieve and evaluate their work, making amendments.</p> <p>I can insert a picture/text/graph/hyperlink from the internet or personal file.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide.</p> <p>I can collect audio from a variety of resources including own recordings and internet clips.</p> <p>I can use a digital device to record sounds and present audio.</p> <p>I can trim, arrange and edit audio levels to improve quality.</p> <p>I can publish their animation and use a movie editing package to edit/refine and add titles.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: audio, record, edit, play stop, skip, waveform, input, output, record, edit, play podcast, digital content, downloadable, backing track, voiceover, mute, gain, production, post-production, documentary, project, evaluation, screening, ceremony, upload.</p>	<p><b>Key Concept: Digital Literacy</b></p> <p>To explain why cyberbullying can be as harmful as in-person bullying.</p> <p>To explain what a stereotype is.</p> <p>To explain what the SMART acronym means.</p> <p>To explain why someone might have an online friendship.</p> <p><b>Key Question: How can SMART acronym help us stay safe online?</b></p>
<b>Digital Literacy</b>	<b>Term 2 – Kodu Programming</b>
<p>I can construct data on the most appropriate application.</p> <p>I know how to interpret data, including spotting inaccurate data and comparing data.</p> <p>I can use keyboard shortcuts and functions to input data on spreadsheets and create formulas for spreadsheets.</p> <p>I can add data to an existing database;</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: Google Docs, insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending.</p> <p>I can protect their password and other personal information.</p> <p>I can be a good online citizen and friend.</p> <p>I can judge what sort of privacy settings might be relevant to reducing different risks.</p> <p>I can seek help from an adult when they see something that is unexpected or worrying.</p> <p>I can discuss scenarios involving online risk.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraud/fraudulent, policy, private/personal.</p>	<p>To follow instructions given in Kodu.</p> <p>To plan and design the features of an original virtual environment.</p> <p>To describe the actions of a sequence of Kodu commands.</p> <p>To use tools to change the size of the ground and raise or lower the landscape.</p> <p><b>Key Question: How can I create a racetrack using Kodu?</b></p>
<b>Computer Science</b>	<b>Term 3 – Film Making</b>
<p>I can use external triggers and infinite loops to demonstrate control.</p> <p>I can follow a sequence of instructions, e.g. in a flowchart and modify a flowchart using symbols.</p> <p>I can use conditional statements and edit variables.</p> <p>I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.</p> <p>I can keep testing a program and recognise when it needs to be debugged.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, commentary, sequence, consequence, debug, program, Kodu, world, object, tool palette, program environment, smooth, flatten, raise.</p> <p>I can search for information using appropriate websites and advanced search functions within Google.</p> <p>I can use strategies to check the reliability of information (cross-check with another source such as books).</p> <p>I can talk about the way search results are selected and ranked.</p> <p>I can check the reliability of a website, including the photos on site.</p> <p>I can tell you about copyright and acknowledge the sources of information.</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, https, site, domain, website, browser, address bar.</p>	<p>To use a digital video camera to record.</p> <p>To plan suitable questions to ask an interviewee.</p> <p>To frame an appropriate filming shot.</p> <p>To arrange video files to form a complete film.</p> <p><b>Key Question: How would I produce my own short film?</b></p>
	<b>Term 4 – Scratch Animated Stories</b>
	<p><b>Key Concept: Computer Science</b></p> <p>To create a sequence of story scenes with added audio.</p> <p>To structure and sequence the animation of characters in each scene.</p> <p>To make a character visible or invisible at the correct times.</p> <p>To use repeat command to create animation effect.</p> <p><b>Key Question: How can I create an animated story?</b></p>
	<b>Term 5 – Spreadsheets</b>
	<p><b>Key Concept: Digital Literacy</b></p> <p>To be able to enter formulae into cells.</p> <p>To edit data and discuss the effect on results.</p> <p>To be able to use further functions including AVERAGE, MIN and MAX.</p> <p>To create graphs.</p> <p><b>Key Question: How can I use a spreadsheet to solve a problem?</b></p>
	<b>Term 6 – Using and Applying</b>
	<p><b>Key Concept: Computer Science and Digital Literacy</b></p> <p>To present research of game types to inform planning.</p> <p>To use Scratch or Kodu to create a simple game.</p> <p>To design appropriate advertising materials to launch or promote a product.</p> <p><b>Key Question: How would I use my skills to research, design and develop a product?</b></p>