

## Computing – Key Vocabulary - Progression of Core Knowledge and Skills

The computing knowledge and skills represented in this document are not exhaustive, but rather identify the core learning taught at Thwaites School to ensure the National Curriculum is covered in a deep and meaningful way, preparing our children for their next step in education by creating knowledgeable, skilful, competent and confident computer specialists.

Early Learning Goals		
<p><b>Personal, Social and Emotional Development - Managing Self</b></p> <p>Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly.</p>	<p><b>Expressive Arts and Design - Creating with Materials</b></p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	
Key Vocabulary		
Key Stage One Vocabulary	Lower Key Stage Two Vocabulary	Upper Key Stage Two Vocabulary
<p><b>Multimedia Text and Images</b></p> <p>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><b>Multimedia, Sound and Motion</b></p> <p>commands, add sound</p> <p><b>Technology in our Lives</b></p> <p>filter, Google, search engine, image, keyboard, email, internet, subject, address, communicate, sender, safe, secure</p> <p><b>Coding and Programming</b></p> <p>algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink</p> <p><b>Online Safety</b></p> <p>safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, key, question, tell, safe, share, stranger, danger, internet</p>	<p><b>Multimedia Text and Images</b></p> <p>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><b>Multimedia, Sound and Motion</b></p> <p>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>Handling Data</b></p> <p>Google Docs, insert, table</p> <p><b>Technology in our Lives</b></p> <p>filter, Google, search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media</p> <p><b>Coding and Programming</b></p> <p>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><b>Online Safety</b></p>	<p><b>Multimedia Text and Images</b></p> <p>window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide</p> <p><b>Multimedia, Sound and Motion</b></p> <p>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>Handling Data</b></p> <p>Google Docs, insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending</p> <p><b>Technology in our Lives</b></p> <p>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>Coding and Programming</b></p> <p>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><b>Online Safety</b></p>

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

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

### Year One and Year Two – Curriculum A

Autumn Term - One	Autumn Term – Two	Spring Term – One	Spring Term – Two	Summer Term – One	Summer Term - Two
Computer Skills	Using the Internet	Presentation Skills	Programming with Scratch Junior	Digital Painting	Programming Toys
<p><b>National Curriculum Coverage</b></p> <p>I know how to 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</p> <p>I know how to use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>I know how to recognise common uses of information technology beyond school</p> <p><b>Year One Knowledge and Skills</b></p> <p>I can identify and label the main parts of a PC device</p> <p>I can explore and understand the functions of a computer mouse</p> <p>I can explore and understand the functions of a laptop trackpad</p> <p>I can explore and understand the main keys on a computer or laptop keyboard</p> <p>I understand how to launch an application and adjust the window</p> <p>I can save, find and open a file in a folder</p> <p>I can apply the computing skills I have learnt to show my understanding</p> <p><b>Year Two Knowledge and Skills</b></p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to use technology purposefully to retrieve digital content in the context of:</p> <p>using a search engine online</p> <p>using an online search engine</p> <p>using links on the Internet</p> <p>I know how to 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 in the context of:</p> <p>using a search engine online</p> <p>using an online search engine</p> <p>following links online</p> <p>creating images for an online blog</p> <p>adding images and text to an online blog</p> <p>posting comments on other people’s blogs</p> <p>I know how to use technology purposefully to create, organise, and store digital content in the context of:</p> <p>creating images for an online blog</p> <p>adding images and text to an online blog</p> <p><b>Year One Knowledge and Skills</b></p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to 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 in the context of:</p> <p>creating folders</p> <p>searching</p> <p>printing</p> <p>I know how to use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of:</p> <p>organising ideas for a presentation</p> <p>creating a simple presentation</p> <p>adding images to a presentation</p> <p>reordering slides</p> <p>presenting a presentation</p> <p><b>Year One Knowledge and Skills</b></p> <p>I understand how to create a folder</p> <p>I can organise ideas for a presentation with support</p> <p>I can create a simple presentation with text with support</p> <p>I can add and format an image with support</p> <p>I can reorder slides with support and assist with presenting a presentation</p>	<p><b>National Curriculum Coverage</b></p> <p>I understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions in the context of:</p> <p>programming a character</p> <p>playing a recorded sound</p> <p>programming a sequence of linked instructions</p> <p>I know how to use logical reasoning to predict the behaviour of simple programs in the context of:</p> <p>programming a character</p> <p>programming a sequence of linked instructions</p> <p>To create and debug simple programs in the context of:</p> <p>programming a character</p> <p>playing a recorded sound</p> <p>programming a sequence of linked instructions</p> <p><b>Year One Knowledge and Skills</b></p> <p>I can describe and use instructions to program a character</p> <p>I can program a character to grow and shrink.</p> <p>I can use instructions to make characters move at different speeds and distances</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of:</p> <p>using painting software to create a picture using a variety of brushes</p> <p>using painting software to create a picture using a variety of colours</p> <p>filling a shape with colour</p> <p>erasing and undoing actions to change a digital painting</p> <p>adding text to a digital painting</p> <p>using painting software to paint a self-portrait</p> <p><b>Year One Knowledge and Skills</b></p> <p>I can use painting software to create a picture, using a variety of brushes</p> <p>I can use painting software to create a picture, using a variety of colours</p> <p>I can fill a shape with colour</p> <p>I can erase and undo actions to change a digital painting</p> <p>I can add text to a digital painting</p> <p>I can use painting software to paint a self-portrait</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can use painting software to create pictures of increasing complexity, using a variety of brushes</p>	<p><b>National Curriculum Coverage</b></p> <p>I understand how [algorithms] are implemented as programs on digital devices and what algorithms are, and that programs execute by following precise and unambiguous instructions in the context of:</p> <p>creating instructions using pictures being precise when writing an algorithm</p> <p>writing instructions to program a person like a computer</p> <p>programming a Bee-Bot to move</p> <p>programming a sequence to make a Bee-Bot move</p> <p>I know how to create and debug simple programs in the context of:</p> <p>creating instructions using pictures</p> <p>programming a Bee-Bot to move</p> <p>debugging a Bee-Bot</p> <p>programming a sequence to make a Bee-Bot move</p> <p>Use technology purposefully to create digital content in the context of:</p> <p>creating instructions using pictures</p> <p><b>Year One Knowledge and Skills</b></p> <p>I can create instructions using pictures</p> <p>I can say why it is important to be precise when writing an algorithm</p>

<p>I can confidently name and demonstrate the main parts of a PC device</p> <p>I understand and can explain the functions of a computer mouse</p> <p>I understand and can explain the functions of a laptop trackpad</p> <p>I understand and can explain the main keys on a computer or laptop keyboard</p> <p>I understand and can explain how to launch an application and adjust the window</p> <p>I can save, find and open a file in a folder and explain how to do it to others</p> <p>I can confidently apply the computing skills I have learnt to show my understanding</p>	<p>I can search the Internet using one word</p> <p>I am beginning to understand how to stay safe when using the Internet</p> <p>I can search the Internet to find results suitable for children with support and supervision</p> <p>I can search for information safely online with support and supervision</p> <p>I am beginning to follow links to another web page</p> <p>I can follow links safely online with support and supervision</p> <p>I am beginning to understand how to create content for an online blog</p> <p>I can use a camera to take safe photos</p> <p>I am beginning to understand how to create content for an online blog</p> <p>I am beginning to understand how to use an online blog safely and respectfully</p> <p>I am beginning to understand how to post positive comments and responses on a blog</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can search the Internet using more than one word</p> <p>I can stay safe when using the Internet.</p> <p>I can search the Internet to find results suitable for children</p> <p>I can search for information safely online</p> <p>I can follow links to another web page</p> <p>I can follow links safely online</p> <p>I can create content for an online blog.</p> <p>I can use a camera to take safe photos to use online</p> <p>I can create content for an online blog</p>	<p>I can search and print with support</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can create a folder</p> <p>I can organise ideas for a presentation</p> <p>I can create a simple presentation with text</p> <p>I can add and format an image</p> <p>I can reorder slides and present a presentation</p> <p>I can search and print</p>	<p>I can use a repeat instruction to make a sequence of instructions run more than once</p> <p>I can create programs that play a recorded sound</p> <p>I can create programs with a sequence of linked instructions</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can describe and use instructions of increasing complexity to program a character</p> <p>I can support others to program a character to grow and shrink</p> <p>I can support others to use instructions to make characters move at different speeds and distances</p> <p>I can use a repeat instruction to make a sequence of complex instructions run more than once</p> <p>I can support others to create programs that play a recorded sound</p> <p>I can create programs with a sequence of linked instructions with increasing complexity</p>	<p>I can use painting software to create pictures of increasing complexity, using a variety of colours</p> <p>I can fill a variety of shapes with different colours</p> <p>I can erase and undo actions to change a digital painting and explain why</p> <p>I can add text to a digital painting and changing size and font</p> <p>I can use painting software to paint a self-portrait of increasing complexity</p>	<p>I can write instructions to program a person like a computer</p> <p>I can program a Bee-Bot to move</p> <p>I can debug a Bee-Bot</p> <p>I can program a sequence to make a Bee-Bot move</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can create instructions of increasing complexity using pictures</p> <p>I understand and can explain why it is important to be precise when writing an algorithm</p> <p>I can write instructions to program a person like a computer with increasing complexity</p> <p>I can program a Bee-Bot to move with increasing complexity</p> <p>I can debug a Bee-Bot with increasing complexity</p> <p>I can program a sequence to make a Bee-Bot move with increasing complexity</p>
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	<p>I can use an online blog safely and respectfully</p> <p>I can post positive comments and responses on a blog</p>				
Year One and Year Two – Curriculum B					
Autumn Term - One	Autumn Term – Two	Spring Term – One	Spring Term – Two	Summer Term – One	Summer Term - Two
Word Processing Skills	Technology Around Us	Preparing for Turtle Logo	Programming Turtle Logo and Scratch	Computer Art	Using and Applying
<p><b>National Curriculum Coverage</b></p> <p>I know how to use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of:</p> <p>using a word processing application to type a sentence</p> <p>using a word processing application to type different symbols and save a document</p> <p>using a word processing application to edit the text in a simple fairy tale</p> <p>using a word processing application to correct mistakes using the undo and redo buttons</p> <p>using a word processing application to highlight appropriate words or sections of type using bold, italics and underline</p> <p>using a word processing application to change the size and colour of the font</p> <p><b>Year One Knowledge and Skills</b></p> <p>I can type on a keyboard</p> <p>I can type symbols and save files</p> <p>I can edit text</p> <p>I can use a keyboard</p> <p>I can select and format text, changing size and font</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can type on a keyboard with increasing speed and confidence</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to recognise common uses of information technology beyond school in the context of:</p> <p>Identifying technology in school</p> <p>Confidently talking about how technology is used in my school</p> <p>Recognising different types of technology in the home</p> <p>Recognising how information technology helps us</p> <p>Understanding how information technology has changed</p> <p>Thinking about how information technology may develop in the future</p> <p><b>Year One Knowledge and Skills</b></p> <p>I can identify some technology in my school</p> <p>I can talk about how some technology is used in my school</p> <p>I recognise some different types of technology in the home and I am beginning to understand why they are used</p> <p>I recognise that information technology is useful</p> <p>I am beginning to understand how information technology has changed and developed over time</p>	<p><b>National Curriculum Coverage</b></p> <p>I understand what algorithms are, and that programs execute by following precise and ambiguous instructions in the context of:</p> <p>giving and following an algorithm to turn right or left</p> <p>giving and following an algorithm to make half and quarter turns</p> <p>giving and following an algorithm using the commands right 90 and left 90</p> <p>giving, following and completing an algorithm</p> <p>using recognised language in an algorithm</p> <p>creating, testing and debugging an algorithm</p> <p>I know how to create and debug simple programs in the context of:</p> <p>giving and following an algorithm to turn right or left</p> <p>giving and following an algorithm to make half and quarter turns</p> <p>giving and following an algorithm using the commands right 90 and left 90</p> <p>giving, following and completing an algorithm</p> <p>using recognised language in an algorithm</p>	<p><b>National Curriculum Coverage</b></p> <p>I understand what algorithms are; and that programs execute by following precise and ambiguous instructions in the context of:</p> <p>using Turtle Logo to draw shapes</p> <p>giving Turtle Logo a repeat command</p> <p>using Scratch</p> <p>I know how to create and debug simple programs in the context of:</p> <p>using Turtle Logo to draw shapes</p> <p>giving Turtle Logo a repeat command</p> <p>using Scratch</p> <p>I know how to use logical reasoning to predict the behaviour of simple programs in the context of:</p> <p>using Turtle Logo to draw shapes</p> <p>giving Turtle Logo a repeat command</p> <p>using Scratch</p> <p><b>Year One Knowledge and Skills</b></p> <p>I am beginning to create an algorithm to move or rotate the turtle</p> <p>I am beginning to create an algorithm and use the repeat command</p> <p>I am beginning to create an algorithm and add sound using Scratch</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of:</p> <p>using a computer program to recreate an artistic style</p> <p><b>Year One Knowledge and Skills</b></p> <p>I can create basic computer art</p> <p>I can use one or two tools in a computer program to reproduce a style of art</p> <p>I can make shapes to create a piece of art</p> <p>I can change the colour of a shape</p> <p>I can retrieve a file in a computer program</p> <p>I am beginning to use a range the skills I have to attempt to create a piece of art</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can create computer art</p> <p>I can use a range of tools in a computer program to reproduce a style of art</p> <p>I can make and edit shapes to create a piece of art</p> <p>I can change the shade of a colour for effect</p> <p>I can retrieve a file to edit in a computer program</p>	<p><b>National Curriculum Coverage</b></p> <p>I understand what algorithms are, and that programs execute by following precise and ambiguous instructions in the context of:</p> <p>giving and following an algorithm to turn right or left</p> <p>giving and following an algorithm to make half and quarter turns</p> <p>giving and following an algorithm using the commands right 90 and left 90</p> <p>giving, following and completing an algorithm</p> <p>using recognised language in an algorithm</p> <p>creating, testing and debugging an algorithm</p> <p>I know how to create and debug simple programs in the context of:</p> <p>giving and following an algorithm to turn right or left</p> <p>giving and following an algorithm to make half and quarter turns</p> <p>giving and following an algorithm using the commands right 90 and left 90</p> <p>giving, following and completing an algorithm</p> <p>using recognised language in an algorithm</p>

<p>I can type symbols with increasing speed and confidence and save files in a multitude of places</p> <p>I can edit text by deleting individual letters and by highlighting</p> <p>I can use a keyboard increasing speed and confidence</p> <p>I can select and format text, changing size, font and colour</p>	<p>I can imagine what information technology may look like in the future</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can identify technology in my school</p> <p>I can confidently talk about how technology is used in my school</p> <p>I recognise different types of technology in the home and understand why they are used</p> <p>I recognise that information technology helps us in many different ways</p> <p>I understand how information technology has changed and developed over time</p> <p>I am beginning to think about how information technology may develop in the future</p>	<p>creating, testing and debugging an algorithm</p> <p>I know how to use logical reasoning to predict the behaviour of simple programs in the context of:</p> <p>giving and following an algorithm to turn right or left</p> <p>giving and following an algorithm to make half and quarter turns</p> <p>giving and following an algorithm using the commands right 90 and left 90</p> <p>giving, following and completing an algorithm</p> <p>using recognised language in an algorithm</p> <p>creating, testing and debugging an algorithm</p> <p><b>Year One Knowledge and Skills</b></p> <p>I can give and follow a simple algorithm to turn right or left</p> <p>I can give and follow a simple algorithm to make half and quarter turns</p> <p>I can give and follow a simple algorithm using the commands right 90 and left 90</p> <p>I can give, follow and complete a simple algorithm</p> <p>I can use recognised language in a simple algorithm</p> <p>I am beginning to create, test and debug a simple algorithm</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can give and follow an algorithm to turn right or left</p> <p>I can give and follow an algorithm to make half and quarter turns</p> <p>I can give and follow an algorithm using the commands right 90 and left 90</p> <p>I can give, follow and complete an algorithm</p>	<p>I am beginning to create an algorithm and use the repeat and say command using Scratch</p> <p>I am beginning to create an algorithm and use the green flag to start using Scratch</p> <p>I am beginning to create an algorithm and use the commands to change the backdrop and add sprites using Scratch</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can create an algorithm to move or rotate the turtle</p> <p>I can create an algorithm and use the repeat command</p> <p>I can create an algorithm and add sound using Scratch</p> <p>I can create an algorithm and use the repeat and say command using Scratch</p> <p>I can create an algorithm and use the green flag to start using Scratch</p> <p>I can create an algorithm and use the commands to change the backdrop and add sprites using Scratch</p>	<p>I can use a range of skills to create a piece of art</p>	<p>creating, testing and debugging an algorithm</p> <p>I know how to use logical reasoning to predict the behaviour of simple programs in the context of:</p> <p>giving and following an algorithm to turn right or left</p> <p>giving and following an algorithm to make half and quarter turns</p> <p>giving and following an algorithm using the commands right 90 and left 90</p> <p>giving, following and completing an algorithm</p> <p>using recognised language in an algorithm</p> <p>creating, testing and debugging an algorithm</p> <p><b>Year One Knowledge and Skills</b></p> <p>I can programme a bee-bot to follow a simple algorithm to turn right and left</p> <p>I can programme a bee-bot to follow a simple algorithm using the commands right 90 and left 90</p> <p>I can create a complete simple algorithm for a bee-bot to follow</p> <p>I can debug a simple algorithm</p> <p><b>Year Two Knowledge and Skills</b></p> <p>I can programme a bee-bot to follow an algorithm to turn right and left</p> <p>I can programme a bee-bot to follow an algorithm using the commands right 90 and left 90</p> <p>I can create a complete algorithm for a bee-bot to follow</p> <p>I can debug an algorithm</p>
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Year Three and Year Four – Curriculum A

I can use recognised language in an algorithm  
I can create, test and debug an algorithm

<p>use research skills to find information</p> <p>I know how to 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 in the context of:</p> <p>use research skills to find information</p> <p><b>Year Three Knowledge and Skills</b></p> <p>I understand and can explain what the Internet is and how it is used around the world</p> <p>I understand and can explain how the Internet works</p> <p>I understand and can explain how to use search engines to make safe online searches</p> <p>I know how to and can use and compare different website links to find reliable information online</p> <p>I know how to and can copy and paste images from a web page using different methods</p> <p>I can create a magazine article using research skills to find information</p> <p><b>Year Four Knowledge and Skills</b></p> <p>I understand and can explain what the Internet is different ways it can be used around the world</p> <p>I understand and can explain, through demonstration, how the Internet works using key vocabulary</p> <p>I understand and can explain, through demonstration, how to use search engines to make safe online searches using key vocabulary</p> <p>I know how to and can use and compare different website links to</p>	<p>I can explain why one password is more effective than another</p> <p>I can take screenshots and add them to a presentation, manipulating their size and position</p> <p>I can change the case of text using shift and caps lock</p> <p>I can align text and decide which looks best in my presentation, explaining my choices</p> <p>I can use bullets and numbering as part of a piece of text</p> <p>I can use the key, explaining symbols using the correct vocabulary</p> <p>I can insert and format text boxes</p>	<p>I can create an effective layout and explain my choices</p> <p>I can combine text and images with increasing complexity and explain my choices</p> <p>I can lay out a variety of objects effectively and explain my choices</p>	<p>I can create slide templates and organise slides with hyperlinks</p> <p>I can add theme, several transitions and several animations to a presentation</p> <p>I can use several action settings</p> <p>I can insert audio and video, adding to the overall design of the slide and explain my choices</p> <p>I can evaluate slide layout and make improvements</p>	<p>understanding email and how it is used</p> <p>sending and receiving emails</p> <p>using features of email to communicate</p> <p>using collaborative tools online to contribute to others' work</p> <p>I know how to 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 in the context of:</p> <p>working collaboratively using software</p> <p>using collaborative tools online to contribute to others' work</p> <p><b>Year Three Knowledge and Skills</b></p> <p>I am beginning to explore the different ways we can communicate online</p> <p>I am beginning to understand the positives and negatives of communicating online</p> <p>I am beginning to understand what email is and how it is used</p> <p>I am beginning to understand how to send and receive emails</p> <p>I know some of the features of email used to communicate with others</p> <p>I am beginning to understand how to work collaboratively using online software</p> <p>I am beginning to understand how to use collaborative tools online</p> <p><b>Year Four Knowledge and Skills</b></p> <p>I can explore the different ways we can communicate online</p>	<p>I can evaluate slide layout and say what I like and what I could improve mostly independently</p> <p><b>Year Four Knowledge and Skills</b></p> <p>I can plan a complex branching story independently</p> <p>I can create slide templates and organise slides with hyperlinks independently</p> <p>I can add theme, several transitions and several animations to a presentation independently</p> <p>I can use several action settings independently</p> <p>I can insert audio and video, adding to the overall design of the slide and explain my choices independently</p> <p>I can evaluate slide layout and make improvements independently</p>
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<p>find reliable information online, explaining why this is necessary</p> <p>I know how to and can copy, paste, move and resize images from a web page using different methods</p> <p>I can create a magazine article using research skills to find reliable information and explain how I know it is reliable</p>				<p>I understand and can explain the positives and negatives of communicating online</p> <p>I understand and can explain what email is and how it is used</p> <p>I understand and can explain how to send and receive emails</p> <p>I can use the features of email to communicate with others</p> <p>I can explain how to work collaboratively using online software</p> <p>I can explain how to use collaborative tools online to contribute to others' work</p>	
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Year Three and Year Four – Curriculum B

Autumn Term - One	Autumn Term – Two	Spring Term – One	Spring Term – Two	Summer Term – One	Summer Term - Two
Coding with Scratch – Learning Loops	Coding with Scratch – Questions and Quizzes	Programming Turtle, Logo and Scratch	Animation	Programming Turtle	Using and Applying – Animal Prints
<p><b>National Curriculum Coverage</b></p> <p>I know how to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs in the context of:</p> <p>writing algorithms using coding blocks in Scratch</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output in the context of:</p> <p>using a loop to repeat an action or sequence multiple times</p> <p>using a loop to repeat a sequence of instructions for a specific task</p> <p>using a forever loop to repeat instructions continuously</p> <p>using a repeat until loop to repeat actions until a certain condition is met</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of:</p> <p>understanding how to use and compare different types of quizzes</p> <p>using duplication and sequencing to create a short quiz</p> <p>making a quiz more visually appealing by adding backdrops and changing sprites</p> <p>using special effects, sounds and scores to enhance a quiz</p> <p>creating a new racing quiz using Operators, Variables and Sensing blocks</p> <p>adding additional features to complete a multiplication quiz</p> <p>reviewing a multiplication quiz</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of:</p> <p>using Turtle Logo and Scratch</p> <p>I know how to use sequence, selection, and repetition in programs; work with variables and various forms of input and output in the context of:</p> <p>using Turtle Logo and Scratch</p> <p>I know how to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs in the context of:</p> <p>using Turtle Logo and Scratch</p> <p><b>Year Three Knowledge and Skills</b></p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to analyse, evaluate and present data and information in the context of:</p> <p>understanding the history of animation</p> <p>I know how to use a variety of software to design and create content that accomplish given goals in the context of:</p> <p>a computer animation of a stick figure</p> <p>an animation recording with a number of moving characters</p> <p>structuring the timing of animation effects to create a short story</p> <p>stop motion animation using a webcam or digital camera and associated software</p> <p>I know how to select, use and combine a variety of software including analysing, evaluating and</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of:</p> <p>using Turtle Logo to create and debug a procedure</p> <p>using Turtle Logo to create and debug an algorithm that uses setpos</p> <p>creating and debugging an algorithm with different colours</p> <p>creating and debugging an algorithm to fill areas with colour</p> <p>creating and debugging an algorithm to write text</p> <p>creating and debugging an algorithm to draw arcs</p> <p>I know how to use sequence, selection, and repetition in programs; work with variables and</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of:</p> <p>using Turtle Logo and Scratch</p> <p>I know how to use sequence, selection, and repetition in programs; work with variables and various forms of input and output in the context of:</p> <p>using Turtle Logo and Scratch</p> <p>I know how to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs in the context of:</p> <p>using Turtle Logo and Scratch</p> <p><b>Year Three Knowledge and Skills</b></p>



<p>designing a simple catching game, making use of appropriate loops</p> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of: designing a simple catching game, making use of appropriate loops</p> <p><b>Year Three Knowledge and Skills</b></p> <p>I can write algorithms using coding blocks in Scratch</p> <p>I can use a loop to repeat an action or sequence multiple times</p> <p>I can use a loop to repeat a sequence of instructions for a specific task</p> <p>I can use a forever loop to repeat instructions continuously</p> <p>I can use a repeat until loop to repeat actions until a certain condition is met</p> <p>I can design a simple catching game, making use of appropriate loops</p> <p><b>Year Four Knowledge and Skills</b></p> <p>I can write algorithms using coding blocks in Scratch with increasing complexity</p> <p>I can use a loop to repeat actions or sequences with increasing complexity multiple times</p> <p>I can use a loop to repeat a sequence of instructions with increasing complexity for a specific task</p> <p>I can use a forever loop to repeat instructions continuously with increasing complexity</p> <p>I can use a repeat until loop to repeat actions until a certain condition is met with increasing complexity</p>	<p>I know how to use sequence, selection, and repetition in programs; work with variables and various forms of input and output in the context of:</p> <p>understanding how to use and compare different types of quizzes</p> <p>making a quiz more visually appealing by adding backdrops and changing sprites</p> <p>using special effects, sounds and scores to enhance a quiz</p> <p>creating a new racing quiz using Operators, Variables and Sensing blocks</p> <p>adding additional features to complete a multiplication quiz</p> <p>reviewing a multiplication quiz</p> <p>Using logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>using duplication and sequencing to create a short quiz</p> <p>making a quiz more visually appealing by adding backdrops and changing sprites</p> <p>using special effects, sounds and scores to enhance a quiz</p> <p>creating a new racing quiz using Operators, Variables and Sensing blocks</p> <p>adding additional features to complete a multiplication quiz</p> <p>reviewing a multiplication quiz</p> <p><b>Year Three Knowledge and Skills</b></p> <p>I understand and can explain how to use different types of quizzes</p> <p>I am attempting to use duplication and sequencing to create a short quiz</p> <p>I am attempting to make a quiz more visually appealing by adding backdrops and changing sprites</p>	<p>I can create and debug an algorithm using the move, rotate and repeat commands</p> <p>I can create and debug algorithms using pen-up and pen-down</p> <p>I can create and debug algorithms that draw regular polygons</p> <p>I can create and debug algorithms that draw shapes</p> <p>I can create and debug algorithms to draw patterns</p> <p><b>Year Four Knowledge and Skills</b></p> <p>I can create and debug algorithms of increasing complexity using the move, rotate and repeat commands</p> <p>I can create and debug algorithm of increasing complexity using pen-up and pen-down</p> <p>I can create and debug algorithms of increasing complexity that draw regular polygons</p> <p>I can create and debug algorithms of increasing complexity that draw shapes</p> <p>I can create and debug algorithms of increasing complexity to draw patterns</p>	<p>presenting data and information in the context of:</p> <p>evaluating and comparing different animation software</p> <p><b>Year Three Knowledge and Skills</b></p> <p>I can describe early forms of animation before computers and can attempt to explain how computers have made a difference</p> <p>I can create a short computer animation using a moving stick figure</p> <p>I can create a recorded animation involving a moving character on a background</p> <p>I can attempt to structure specific timing of animations using a time slider with support</p> <p>I can use a camera to create a short stop motion animation film with support</p> <p>I can say what I like and dislike about software</p> <p><b>Year Four Knowledge and Skills</b></p> <p>I can describe early forms of animation before computers and how computers have made a difference</p> <p>I can create a short computer animation using one or more moving stick figures</p> <p>I can create a recorded animation involving a number of moving characters on a background</p> <p>I can structure specific timing of animations using a time slider</p> <p>I can use a camera to create a short stop motion animation film</p> <p>I can analyse and evaluate software</p>	<p>various forms of input and output in the context of:</p> <p>using Turtle Logo to create and debug a procedure</p> <p>using Turtle Logo to create and debug an algorithm that uses setpos</p> <p>creating and debugging an algorithm with different colours</p> <p>creating and debugging an algorithm to fill areas with colour</p> <p>creating and debugging an algorithm to write text</p> <p>creating and debugging an algorithm to draw arcs</p> <p>I know how to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs in the context of:</p> <p>using Turtle Logo to create and debug a procedure</p> <p>using Turtle Logo to create and debug an algorithm that uses setpos</p> <p>creating and debugging an algorithm with different colours</p> <p>creating and debugging an algorithm to fill areas with colour</p> <p>creating and debugging an algorithm to write text</p> <p>creating and debugging an algorithm to draw arcs</p> <p><b>Year Three Knowledge and Skills</b></p> <p>I can attempt to create and debug an algorithm to create a procedure with support</p> <p>I can attempt to create and debug an algorithm that uses setpos to draw shapes with support</p> <p>I can attempt to create and debug an algorithm with different colours with support</p> <p>I can attempt to create and debug an algorithm to fill areas with colour with support</p>	<p>I can create and debug an algorithm using the move, rotate and repeat commands independently</p> <p>I can create and debug algorithms using pen-up and pen-down independently</p> <p>I can create and debug algorithms that draw regular polygons independently</p> <p>I can create and debug algorithms that draw shapes independently</p> <p>I can create and debug algorithms to draw patterns independently</p> <p><b>Year Four Knowledge and Skills</b></p> <p>I can create and debug algorithms of increasing complexity using the move, rotate and repeat commands independently</p> <p>I can create and debug algorithm of increasing complexity using pen-up and pen-down independently</p> <p>I can create and debug algorithms of increasing complexity that draw regular polygons independently</p> <p>I can create and debug algorithms of increasing complexity that draw shapes independently</p> <p>I can create and debug algorithms of increasing complexity to draw patterns independently</p>
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<p>I can design a catching game, making use of appropriate loops</p>	<p>I am attempting to add special effects, sounds and scores to enhance a quiz</p> <p>I can create a new racing quiz using Operators, Variables and Sensing blocks with support</p> <p>I can add additional features to complete a multiplication quiz with support</p> <p>I can say what I like about a multiplication quiz and how I can improve it next time</p> <p><b>Year Four Knowledge and Skills</b></p> <p>I understand and can explain how to use and compare different types of quizzes</p> <p>I can use duplication and sequencing to create a short quiz</p> <p>I can make a quiz more visually appealing by adding backdrops and changing sprites</p> <p>I can use special effects, sounds and scores to enhance a quiz</p> <p>I can create a new racing quiz using Operators, Variables and Sensing blocks</p> <p>I can add additional features to complete a multiplication quiz</p> <p>I can review a multiplication quiz</p>			<p>I can attempt to create and debug an algorithm to produce text with support</p> <p>I can attempt to create and debug an algorithm to draw arcs with support</p> <p><b>Year Four Knowledge and Skills</b></p> <p>I can create and debug an algorithm to create a procedure</p> <p>I can create and debug an algorithm that uses setpos to draw shapes</p> <p>I can create and debug an algorithm with different colours</p> <p>I can create and debug an algorithm to fill areas with colour</p> <p>I can create and debug an algorithm to produce text</p> <p>I can create and debug an algorithm to draw arcs</p>	
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Year Five and Year Six – Curriculum A

Autumn Term - One	Autumn Term – Two	Spring Term – One	Spring Term – Two	Summer Term – One	Summer Term - Two
Strategic Searching Online	Flowol	Radio Station	Spreadsheets	Film Making	Using and Applying – London Film
<p><b>National Curriculum Coverage</b></p> <p>I know how to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of:</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of:</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to select, use and combine a variety of software on a range of digital devices to create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information in the context of:</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to 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</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals in the context of:</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals in the context of:</p>

<p>finding out information on the Internet using search engines</p> <p>using Boolean operators to refine a search</p> <p>identifying reliable and trustworthy websites</p> <p>understanding how search engines work</p> <p>understanding what page ranking is</p> <p>using SEO to improve a web page</p> <p><b>Year Five Knowledge and Skills</b></p> <p>I can find out information on the Internet using search engines</p> <p>I can use Boolean operators to refine a search</p> <p>I can identify and explain what makes a website reliable and trustworthy</p> <p>I understand and can explain how search engines work</p> <p>I understand and can explain what page ranking is</p> <p>I can use SEO to improve a web page</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can find information on a specific subject from several sources on the Internet using search engines</p> <p>I can use Boolean operators to refine a search, explaining the process using the correct vocabulary</p> <p>I can identify and explain what makes a website reliable and trustworthy, pointing out and explaining specific features using the correct vocabulary</p> <p>I understand how search engines work and can explain it using the correct vocabulary</p> <p>I understand and can explain what page ranking is, using the correct vocabulary</p>	<p>interpreting a flowchart with the correct symbols</p> <p>creating and editing a flowchart to control a simulated device</p> <p>controlling multiple outputs at the same time</p> <p>using Flowol</p> <p>I know how to use sequence, selection, and repetition in programs; work with variables and various forms of input and output in the context of:</p> <p>Using Flowol</p> <p><b>Year Five Knowledge and Skills</b></p> <p>I can draw and interpret a flowchart with the correct symbols</p> <p>I can create a flowchart to control a simulated device</p> <p>I can control up to two outputs at the same time</p> <p>I can use a decision symbol based on the status of an input</p> <p>I can create a flowchart program containing a subroutine</p> <p>I can design, write and debug my own flowchart program for a given task</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can demonstrate how to draw and interpret a flowchart with the correct symbols to others</p> <p>I can create and edit a flowchart to control a simulated device</p> <p>I can control multiple outputs at the same time</p> <p>I can explain how to use a decision symbol based on the status of an input</p> <p>I can create a flowchart program containing several subroutines</p> <p>I can design, write and debug my own flowchart program for a given task confidently and independently</p>	<p>using software to create my own sounds by recording, editing and playing</p> <p>combining audio effects to create an original radio jingle</p> <p>researching and plan digital content for a radio podcast</p> <p>creating and presenting digital content for a radio podcast</p> <p>recording a persuasive radio advert for a product or service</p> <p>presenting and evaluating audio content</p> <p><b>Year Five Knowledge and Skills</b></p> <p>I am beginning to use software to create my own sounds by recording, editing and playing</p> <p>I can attempt to combine audio effects to create an original radio jingle</p> <p>I am beginning to research and plan digital content for a radio podcast</p> <p>I can attempt to use software to create and present digital content for a radio podcast</p> <p>I can design and record a persuasive radio advert for a product or service with support</p> <p>I can present audio content and say what I can do to improve it next time</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can use software to create my own sounds by recording, editing and playing</p> <p>I can combine audio effects to create an original radio jingle</p> <p>I can research and plan digital content for a radio podcast</p> <p>I can use software to create and present digital content for a radio podcast</p>	<p>collecting, analysing, evaluating and presenting data and information in the context of</p> <p>entering data and formulae into a spreadsheet</p> <p>ordering and present data based on calculations</p> <p>adding, editing and calculating data using a spreadsheet to solve problems</p> <p>planning and calculating a spending budget</p> <p>designing a spreadsheet for a specific purpose</p> <p><b>Year Five Knowledge and Skills</b></p> <p>I am beginning to enter data and formulae into a spreadsheet</p> <p>I am beginning to order and present data based on calculations</p> <p>I am beginning to add, edit and calculate data</p> <p>I am beginning to use a spreadsheet to solve problems</p> <p>I am beginning to plan and calculate a spending budget</p> <p>I am beginning to design a spreadsheet for a specific purpose</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can enter data and formulae into a spreadsheet</p> <p>I can order and present data based on calculations</p> <p>I can add, edit and calculate data</p> <p>I can use a spreadsheet to solve problems</p> <p>I can plan and calculate a spending budget</p> <p>I can design a spreadsheet for a specific purpose</p>	<p>writing and planning a short documentary film</p> <p>using video editing software to combine and edit their videos into a finished film</p> <p>adding final touches to turn their videos into a finished film, saving as a movie file and presenting with a screening</p> <p>I know how to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of:</p> <p>using the Internet to research their chosen documentary topic</p> <p>I understand computer networks including the internet and the opportunities they offer for communication and collaboration in the context of:</p> <p>using the Internet to research their chosen documentary topic</p> <p>I know how to use a variety of software on a range of digital devices to design and create a range of content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information in the context of:</p> <p>filming documentaries using digital devices and importing them into video editing software</p> <p>planning and executing video interviews recorded using digital devices and importing them into video editing software</p> <p><b>Year Five Knowledge and Skills</b></p> <p>I am beginning to use appropriate software and other tools effectively to write a film script</p>	<p>writing and planning a short documentary film</p> <p>using video editing software to combine and edit their videos into a finished film</p> <p>adding final touches to turn their videos into a finished film, saving as a movie file and presenting with a screening</p> <p>I know how to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of:</p> <p>using the Internet to research their chosen documentary topic</p> <p>I understand computer networks including the internet and the opportunities they offer for communication and collaboration in the context of:</p> <p>using the Internet to research their chosen documentary topic</p> <p>I know how to use a variety of software on a range of digital devices to design and create a range of content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information in the context of:</p> <p>filming documentaries using digital devices and importing them into video editing software</p> <p>planning and executing video interviews recorded using digital devices and importing them into video editing software</p> <p><b>Year Five Knowledge and Skills</b></p> <p>I can use appropriate software and other tools effectively to write a film script mostly independently</p> <p>I can locate and check appropriate digital content, and provide</p>
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<p>I can use SEO to improve a web page and explain the process using the correct vocabulary</p>		<p>I can design and record a persuasive radio advert for a product or service</p> <p>I can present and evaluate audio content</p>		<p>I can locate and check appropriate digital content, and I am beginning to provide crediting of sources</p> <p>I am beginning to use digital recording devices to film and import into video editing software with support</p> <p>I can plan, conduct and import video interviews as part of a short film with support</p> <p>I am beginning to use video editing software to create a short film</p> <p>I am beginning to use video editing software to turn a film project into a finished movie and present it</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can use appropriate software and other tools effectively to write a film script</p> <p>I can locate and check appropriate digital content, and provide accurate crediting of sources</p> <p>I can use digital recording devices to film and import into video editing software</p> <p>I can plan, conduct and import video interviews as part of a short film</p> <p>I can use video editing software to create a short film</p> <p>I can use video editing software to turn a film project into a finished movie and present it</p>	<p>accurate crediting of sources mostly independently</p> <p>I can use digital recording devices to film and import into video editing software mostly independently</p> <p>I can plan, conduct and import video interviews as part of a short film mostly independently</p> <p>I can use video editing software to create a short film mostly independently</p> <p>I can use video editing software to turn a film project into a finished movie and present it mostly independently</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can use appropriate software and other tools effectively to write a film script independently and confidently</p> <p>I can locate and check appropriate digital content, and provide accurate crediting of sources independently and confidently</p> <p>I can use digital recording devices to film and import into video editing software independently and confidently</p> <p>I can plan, conduct and import video interviews as part of a short film independently and confidently</p> <p>I can use video editing software to create a short film independently and confidently</p> <p>I can use video editing software to turn a film project into a finished movie and present it independently and confidently</p>
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Year Five and Year Six – Curriculum B

Autumn Term - One	Autumn Term – Two	Spring Term – One	Spring Term – Two	Summer Term – One	Summer Term - Two
Coding with Scratch – Animated Stories	Know Your Network	Kodu Programming	Coding with Scratch – Developing Games	Photography	Using and Applying – Computer Game Design

<p><b>National Curriculum Coverage</b></p> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of:</p> <ul style="list-style-type: none"> <li>creating appropriate animations</li> <li>structuring and controlling the timing of events</li> <li>controlling when sprites are visible</li> <li>planning a sequence of events to create a story narrative</li> <li>sequencing events to create a story narrative</li> <li>adding voice sounds to enhance an animated story</li> </ul> <p>I know how to use sequence, selection, and repetition in programs; work with variables and various forms of input and output in the context of:</p> <ul style="list-style-type: none"> <li>creating appropriate animations</li> <li>structuring and controlling the timing of events</li> <li>controlling when sprites are visible</li> <li>planning a sequence of events to create a story narrative</li> <li>sequencing events to create a story narrative</li> <li>adding voice sounds to enhance an animated story</li> </ul> <p>I know how to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs in the context of:</p> <ul style="list-style-type: none"> <li>creating appropriate animations</li> <li>structuring and controlling the timing of events</li> <li>adding voice sounds to enhance an animated story</li> </ul> <p><b>Year Five Knowledge and Skills</b></p>	<p><b>National Curriculum Coverage</b></p> <p>I 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 in the context of:</p> <ul style="list-style-type: none"> <li>understanding what computer networking is</li> <li>understanding the advantages and disadvantages of a computer network</li> <li>understanding what LAN (local area network), MAN (metropolitan area network) and WAN (wide area network) are</li> <li>understanding what topology is and how topology networks work</li> <li>understanding how computers connect to the Internet using protocols</li> <li>understanding the differences between the Internet and World Wide Web</li> <li>understanding what cloud computing is</li> </ul> <p><b>Year Five Knowledge and Skills</b></p> <p>I can explain what computer networking is</p> <p>I can explain the advantages and disadvantages of a computer network</p> <p>I can explain what LAN (local area network), MAN (metropolitan area network) and WAN (wide area network) are</p> <p>I can explain what topology is and how topology networks work</p> <p>I can explain how computers connect to the Internet using protocols</p> <p>I can explain how computers send and receive information using packets and routing</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to select, use and combine a variety of software, including evaluating and presenting data and information. use logical reasoning to explain how some simple algorithms work in the context of:</p> <ul style="list-style-type: none"> <li>investigating and evaluating the features of programming software</li> </ul> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of:</p> <ul style="list-style-type: none"> <li>programming Kodu using 'When' and 'Do' instructions</li> <li>using tools and adding features to create an original landscape in Kodu</li> </ul> <p>programming a character to be controlled around a custom track to reach a goal</p> <p>programming a character to follow an automatic path</p> <p>I know how to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs in the context of:</p> <ul style="list-style-type: none"> <li>programming Kodu using 'When' and 'Do' instructions</li> <li>analysing and deconstructing code to work out its purpose</li> </ul> <p>I know how to solve problems by decomposing them into smaller parts in the context of:</p> <ul style="list-style-type: none"> <li>analysing and deconstructing code to work out its purpose</li> </ul> <p><b>Year Five Knowledge and Skills</b></p> <p>I can investigate and evaluate the features of programming software with support</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of:</p> <ul style="list-style-type: none"> <li>designing and programming a maze game</li> <li>designing and programming another level for a maze game</li> <li>adding a final level to a maze game</li> <li>adding sound effects with a purpose</li> <li>designing and programming a game within Scratch using Boolean operators</li> <li>programming costume changes for a sprite in a game</li> <li>adding effects that enhance a game</li> <li>adding a point-scoring system to a game</li> <li>adding backdrop changes to a game</li> </ul> <p>I know how to use sequence, selection, and repetition in programs; work with variables and various forms of input and output in the context of:</p> <ul style="list-style-type: none"> <li>designing and programming a maze game</li> <li>designing and programming another level for a maze game</li> <li>adding a final level to a maze game</li> <li>adding sound effects with a purpose</li> <li>designing and programming a game within Scratch using Boolean operators</li> <li>programming costume changes for a sprite in a game</li> <li>adding effects that enhance a game</li> <li>adding a point-scoring system to a game</li> <li>adding backdrop changes to a game</li> </ul> <p><b>Year Five Knowledge and Skills</b></p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to 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 in the context of:</p> <ul style="list-style-type: none"> <li>picking a focal point</li> <li>using the camera controls to zoom in and out to enhance my photograph</li> <li>changing angle to enhance my photograph</li> <li>considering framing to enhance my photograph</li> <li>considering lighting to enhance my photograph</li> <li>editing the saturation, contrast and sharpness of my photograph</li> <li>use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of:</li> <li>picking a focal point</li> <li>using the camera controls to zoom in and out to enhance my photograph</li> <li>changing angle to enhance my photograph</li> <li>considering framing to enhance my photograph</li> <li>considering lighting to enhance my photograph</li> <li>editing the saturation, contrast and sharpness of my photograph</li> </ul> <p><b>Year Five Knowledge and Skills</b></p> <p>I can pick a focal point</p>	<p><b>National Curriculum Coverage</b></p> <p>I know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts in the context of:</p> <ul style="list-style-type: none"> <li>designing and programming a game</li> <li>designing and programming another level for a game</li> <li>adding a final level to a game</li> <li>adding sound effects with a purpose</li> <li>designing and programming a game within Scratch using Boolean operators</li> <li>programming costume changes for a sprite in a game</li> <li>adding effects that enhance a game</li> <li>adding a point-scoring system to a game</li> <li>adding backdrop changes to a game</li> </ul> <p>I know how to use sequence, selection, and repetition in programs; work with variables and various forms of input and output in the context of:</p> <ul style="list-style-type: none"> <li>designing and programming a game</li> <li>designing and programming another level for a game</li> <li>adding a final level to a game</li> <li>adding sound effects with a purpose</li> <li>designing and programming a game within Scratch using Boolean operators</li> <li>programming costume changes for a sprite in a game</li> <li>adding effects that enhance a game</li> <li>adding a point-scoring system to a game</li> <li>adding backdrop changes to a game</li> </ul> <p><b>Year Five Knowledge and Skills</b></p> <p>I can design and program a game</p>
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<p>I am beginning to structure and control the timing of events</p> <p>I can create appropriate animations with support</p> <p>I can attempt to control when sprites are visible</p> <p>I can attempt to plan a sequence of events to create a story narrative</p> <p>I can attempt to sequence events to create a story narrative</p> <p>I can add voice sounds to enhance an animated story with support</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can structure and control the timing of events</p> <p>I can create appropriate animations</p> <p>I can control when sprites are visible</p> <p>I can plan a sequence of events to create a story narrative</p> <p>I can sequence events to create a story narrative</p> <p>I can add voice sounds to enhance an animated story</p>	<p>I can explain the differences between the Internet and World Wide Web</p> <p>I can explain what cloud computing is</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can explain, in increasing detail, what computer networking is</p> <p>I can explain, in increasing detail, the advantages and disadvantages of a computer network</p> <p>I can explain what LAN (local area network), MAN (metropolitan area network) and WAN (wide area network) are</p> <p>I can explain, in increasing detail, what topology is and how topology networks work</p> <p>I can explain, in increasing detail, how computers connect to the Internet using protocols</p> <p>I can explain, in increasing detail, how computers send and receive information using packets and routing</p> <p>I can explain, in increasing detail, the differences between the Internet and World Wide Web</p> <p>I can explain, in increasing detail, what cloud computing is</p>	<p>I am beginning to program Kodu using 'When' and 'Do' instructions</p> <p>I am beginning to use tools and add features to create an original landscape in Kodu</p> <p>I am beginning to analyse and deconstruct code to work out its purpose</p> <p>I can program a character to be controlled around a custom track to reach a goal with support</p> <p>I can program a character to follow an automatic path with support</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can investigate and evaluate the features of programming software</p> <p>I can program Kodu using 'When' and 'Do' instructions.</p> <p>I can use tools and add features to create an original landscape in Kodu</p> <p>I can analyse and deconstruct code to work out its purpose</p> <p>I can program a character to be controlled around a custom track to reach a goal</p> <p>I can program a character to follow an automatic path</p>	<p>I can design and program a maze game with support</p> <p>I can design and program the next level for my Maze Game with support</p> <p>I can attempt to add a final level, further enhancing the code in a Maze Game with support</p> <p>I can add sound effects with support</p> <p>I can attempt to design and program a game within Scratch using Boolean operators</p> <p>I can program one costume change for a sprite in a game with support</p> <p>I can add effects with support</p> <p>I can add a point-scoring system to a game with support</p> <p>I can add backdrop changes to a game with support</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can design and program a maze game</p> <p>I can design and program the next level for my Maze Game</p> <p>I can add a final level, further enhancing the code in a Maze Game</p> <p>I can add sound effects with a purpose</p> <p>I can design and program a game within Scratch using Boolean operators</p> <p>I can program costume changes for a sprite in a game</p> <p>I can add effects that enhance a game</p> <p>I can add a point-scoring system to a game</p> <p>I can add backdrop changes to a game</p>	<p>I can use the camera controls to zoom in and out</p> <p>I can change angle when taking a photograph</p> <p>I can change framing</p> <p>I am beginning to think about lighting</p> <p>I can edit the saturation, contrast and sharpness of my photograph</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can pick a focal point, explaining my choices using the correct vocabulary</p> <p>I can use the camera controls to zoom in and out to enhance my photograph</p> <p>I can change angle to enhance my photograph</p> <p>I can consider framing to enhance my photograph</p> <p>I can consider lighting to enhance my photograph</p> <p>I can edit the saturation, contrast and sharpness of my photograph and explain my choices using the correct vocabulary</p>	<p>I can design and program the next level for my game</p> <p>I can add a final level, further enhancing the code in my game</p> <p>I can add sound effects</p> <p>I can design and program a game within Scratch using Boolean operators</p> <p>I can program one costume change for a sprite in a game</p> <p>I can add effects in a game</p> <p>I can add a point-scoring system to a game</p> <p>I can add backdrop changes to a game</p> <p><b>Year Six Knowledge and Skills</b></p> <p>I can design and program a game with increasing complexity</p> <p>I can design and program the next level for my game with increasing complexity</p> <p>I can add a final level, further enhancing the code in a game increasing in complexity with increasing complexity</p> <p>I can add sound effects with a purpose with increasing complexity</p> <p>I can design and program a game within Scratch using Boolean operators with increasing complexity</p> <p>I can program costume changes for a sprite in a game with increasing complexity</p> <p>I can add effects that enhance a game with increasing complexity</p> <p>I can add a point-scoring system to a game with increasing complexity</p> <p>I can add backdrop changes to a game with increasing complexity</p>
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