



Foxdell Primary School: Computing Curriculum Map

Computing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception Non statutory	Computing systems and Networks 1 Using a computer				Programming : All About Instructions	
Reception Online Safety	Project Evolve Self-Image and Identity I can recognise, online or offline, that anyone can say 'no' - 'please stop' - 'I'll tell' - 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset.	Project Evolve Online relationships To recognise some ways in which the internet can be used to communicate.	Project Evolve Online reputation To identify ways that I can put information on the internet.	Project Evolve Online Bullying To describe ways that some people can be unkind online.	Project Evolve Health, Well Being and Lifestyle To identify rules that help keep us safe and healthy in and beyond the home when using technology	Project Evolve Privacy and Security To identify some simple examples of my personal information (e.g. name, address, birthday, age, location).
Year 1	<p>NCCE 1.1 Computing systems and networks – Technology around us (adapt plans so last 2 lessons , End of unit task</p> <p>Progression of skills Y1 Pupils can recognise and can give examples of common uses of information technology they encounter in their daily routine.</p>	<p>NCCE 1.2 Creating media Digital painting End of unit task</p> <p>Progression of skills Y1 Pupil can use a range of different tools such as freehand, shape and line tools to draw a picture Pupils can use different paint tools and colours</p>	<p>NCCE 1.3 Creating media Digital writing</p> <p>Progression of skills Y1 Pupils know writing on a computer is called typing and can identify and find keys on a keyboard can add, remove and edit text</p>	<p>NCCE 1.4 Data and information Grouping data</p> <p>Progression of skills Y1 Pupils are beginning to use a range of technology and techniques to use and create digital content such as still and moving images, video, audio and</p>	<p>NCCE 1.5 Programming A Moving a robot</p> <p>Progression of skills Y1 Pupils can give instructions to a friend and follow their instructions understand what an algorithm is</p>	<p>NCCE 1.6 Programming Introduction to animation</p> <p>Progression of skills Y1 Pupils can describe what actions they need to do to make something happen Pupils begin to predict what will happen for a</p>

	<p>Pupils can identify different types of technology and name the main parts of a computer and device</p> <p>Pupils can switch on and log into different devices e.g. tablet, computer</p>	<p>when creating pictures and change the colour and brush sizes</p> <p>Pupil are beginning to experiment with how to create a range of effects - shades, patterns and results using different tools</p>	<p>know that the look of text can be changed by using different icons on toolbars</p> <p>know how to select a word to change the look</p>	<p>text. They can explain which tools they used when creating their work and making changes and improvements.</p>	<p>can identify and list the steps of a known task in order and create a simple algorithm</p> <p>understand that the order of instructions in an algorithm is important</p> <p>can press the buttons in the correct order to make a robot do what they want</p> <p>describe what will happen/happened when they press(ed) buttons on a robot</p>	<p>short sequence of instructions</p> <p>Pupils can spot mistakes when they run a program e.g. on a floor robot or programming app and can debug the error</p> <p>understand what the terms debug and debugging mean</p> <p>are beginning to understand that digital devices simulate real situations</p>
Year 1 Evidence	<p>End of unit-Pupils to record videos explaining what they have learnt.</p>	<p>Work assigned through Google classroom</p>	<p>Pupils to create a piece of writing in English (possibly in Purple Mash)</p>	<p>Work to be created and saved on Purple Mash</p>	<p>Pupils to use ipads to record their finished work and save in portfolio on Google classroom</p>	<p>Work created during unit - identify best work and add to Portfolio on Google classroom</p>
Year 1 Online Safety	<p>Project Evolve Self-Image and Identity</p> <p>To recognise that there may be people online who could make someone feel sad, embarrassed or upset.</p> <p>Progression of skills Y1</p> <p>Pupils can describe people they can trust and can share this with; explain why can trust them.</p>	<p>Project Evolve- Online relationships</p> <p>To give examples of when I should ask permission to do something online and explain why this is important.</p> <p>Progression of skills Y1</p> <p>Pupils can describe people can trust and can share this with; explain why can trust them.</p> <p>Pupils can explain why should always ask a</p>	<p>Project Evolve Online reputation</p> <p>To recognise that information can stay online and could be copied.</p> <p>Progression of skills Y1</p> <p>Pupils can describe people can trust and can share this with; explain why can trust them.</p> <p>Pupils explain why they should always ask a trusted adult before</p>	<p>Project Evolve Online Bullying</p> <p>describe how to behave online in ways that do not upset others and can give examples.</p> <p>Progression of skills Y1</p> <p>Pupils can describe people can trust and can share this with; explain why can trust them.</p> <p>Pupils can explain why should always ask a trusted adult before</p>	<p>Project Evolve Health, Well Being and Lifestyle</p> <p>I know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke.</p> <p>Progression of skills Y1</p> <p>Pupils can describe people can trust and can</p>	<p>Project Evolve Privacy and Security</p> <p>explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others.</p> <p>Progression of skills Y1</p> <p>Pupils can describe people can trust and can share this with; explain why can trust them.</p>

	Pupils can explain how passwords can be used to protect information and devices.	trusted adult before share any personal information online.	share any personal information online.	share any personal information online.	share this with; explain why can trust them. Pupils can explain why should always ask a trusted adult before share any personal information online.	Pupils can explain why should always ask a trusted adult before share any personal information online.
Year 2	<p>NCCE 2.1 Computing systems and networks – IT around us</p> <p>Pupils can identify common uses of information technology beyond school, including those which they don't frequently encounter in their daily routine. compare types of information technology and identify common features</p> <p>Pupils know that information (work) can be stored and saved in different places e.g. on a computer and online understand that saved information can be retrieved, edited and re-saved and can independently save and retrieve their work know that work can be printed know that work can be shared so it can be</p>	<p>NCCE 2.2 Creating media Digital photography</p> <p>Pupils can explain the process of taking a good photograph e.g. the effect that light has on a photo</p> <p>Pupils use a range of photography skills to capture a photo and different tools within the camera app to apply different effects to photos</p> <p>Pupils can explain the process of filming good footage</p> <p>Pupils understand you can edit and change digital content</p> <p>Pupils can use photo editing tools to make changes and add text e.g. captions, labels</p> <p>Pupils can use basic video editing tools to e.g. trim start and end of films taken</p> <p>Pupils can create films</p>	<p>NCCE 2.3 Creating media Making music</p> <p>Pupils can use technology to listen to music</p> <p>They can use technology to create musical patterns</p> <p>They can experiment with pitch and duration</p> <p>They can review and refine musical patterns using technology</p> <p>They can record music and playback</p>	<p>NCCE 2.5/Espresso Programming A Robot algorithms</p> <p>Pupils can create an algorithm to achieve specific goals</p> <ul style="list-style-type: none"> • understand that instructions in an algorithm need to be clear and unambiguous • can convert an algorithm into a program by e.g. entering instructions into a floor robot or creating program to control an on-screen sprite • can solve real and imaginary problems on and off screen <p>use the principles of logical reasoning to plan and predict the outcome of simple algorithms and programs</p> <p>identify and explain patterns in algorithm and begin to</p>	<p>NCCE 2.5 & 2.6 Programming A Robot algorithms Programming B – An introduction to quizzes</p> <p>Pupils can create an algorithm to achieve specific goals</p> <p>They understand that instructions in an algorithm need to be clear and unambiguous</p> <p>can convert an algorithm into a program by e.g. entering instructions into a floor robot or creating program to control an on-screen sprite</p> <p>They can solve real and imaginary problems on and off screen</p> <p>Pupils use the principles of logical reasoning to plan and predict the outcome of simple algorithms and programs</p> <p>identify and explain patterns in algorithm and begin to understand repetition</p>	<p>NCCE 2.6 Programming B An introduction to quizzes</p> <p>Pupils:</p> <ul style="list-style-type: none"> • can create an algorithm to achieve specific goals • understand that instructions in an algorithm need to be clear and unambiguous • can convert an algorithm into a program by e.g. entering instructions into a floor robot or creating program to control an on-screen sprite • can solve real and imaginary problems on and off screen <p>use the principles of logical reasoning to plan and predict the outcome of simple algorithms and programs</p> <p>identify and explain patterns in algorithm</p>

	viewed and edited by others	from still photos and films and use different transitions to create different visual effects		understand repetition identify and correct errors in a given algorithm and program (debugging) can watch a program execute and spot where it goes wrong to debug it evaluate the success of an algorithm or program are beginning to use the language if... then to describe the relationship between two actions	Pupils identify and correct errors in a given algorithm and program (debugging) Pupils can watch a program execute and spot where it goes wrong to debug it Pupils evaluate the success of an algorithm or program They are beginning to use the language if... then to describe the relationship between two actions	and begin to understand repetition identify and correct errors in a given algorithm and program (debugging) can watch a program execute and spot where it goes wrong to debug it evaluate the success of an algorithm or program are beginning to use the language if... then to describe the relationship between two actions
Year2 Evidence	End of unit-Pupils to record videos explaining what they have learnt.	Work assigned through Google classroom	Pupils to create a piece of writing in English (possibly in Purple Mash)	Work to be created and saved on Purple Mash	Pupils to use ipads to record their finished work and save in portfolio on Google classroom	Work created during unit - identify best work and add to Portfolio on Google classroom
Year 2 Online safety	Project Evolve Self-Image and Identity To recognise that there may be people online who could make someone feel sad, embarrassed or upset. Progression of skills Y2	Project Evolve- Online relationships To give examples of when I should ask permission to do something online and explain why this is important. Progression of skills Y2	Project Evolve Online reputation To recognise that information can stay online and could be copied. Progression of skills Y2 • explain the difference between things that	Project Evolve Online Bullying To describe how to behave online in ways that do not upset others and can give examples. Progression of skills Y2 Pupils can:	Project Evolve Health, Well Being and Lifestyle I know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke.	Project Evolve Privacy and Security explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others. Progression of skills Y2

	<p>Pupils can describe how online information about them could be seen by others</p> <p>They can describe and explain some rules for keeping personal information private</p> <p>They explain what passwords are and can use passwords for accounts and devices</p>	<p>Pupils can describe how online information about them could be seen by others</p> <p>describe and explain some rules for keeping personal information private</p> <p>explain what passwords are and can use passwords for accounts and devices</p>	<p>are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.</p> <ul style="list-style-type: none"> explain why some information online may not be true. 	<ul style="list-style-type: none"> describe how online information about them could be seen by others describe and explain some rules for keeping personal information private explain what passwords are and can use passwords for accounts and devices 	<p>Progression of skills Y2</p> <ul style="list-style-type: none"> explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. explain why some information online may not be true. 	<ul style="list-style-type: none"> explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. explain why some information online may not be true.
<p>Year 3</p>	<p>NCCE Connecting Devices 3.1</p> <p>Progression Y3 skills</p> <p>Pupils talk about and label the parts of a device.</p> <p>Pupils are beginning to understand how computers can be linked to form a local network. Pupils understand that the internet is a computer network and can provide multiple services.</p> <p>Understand they should only share information from people they choose to and can trust.</p> <p>Know what to do when they feel pressured/upset.</p> <p>AND CODE FOR LIFE</p>	<p>NCCE Sequencing Sounds 3.5</p> <p>Software on Chromebooks: BANDLAB EDU</p> <p>Progression Y3 Skills</p> <p>Pupils understand what an algorithm is.</p> <p>Pupils can sequence instructions in the appropriate order and use repetition</p> <p>Pupils can create digital content using a range of mixed tools/media.</p> <p>They understand that different programs work with different types of data.</p> <p>Pupils show respect for content created by others by acknowledging sources.</p>	<p>Safer Internet Day</p> <p>NCCE Animation 3.2</p> <p>Progression Y3 Skills</p> <p>Pupils can use editing and formatting techniques.</p> <p>Pupils demonstrate creativity and independence to create content.</p> <p>Pupils understand the benefits of using a computer to create and present information.</p> <p>Pupils understand the need to create a plan/storyboard.</p> <p>They can explain that if they are not sure or feel pressured they should ask a trusted adult.</p> <p>They can explain the difference between a 'belief', an 'opinion' and</p>	<p>NCCE Branching Databases 3.4</p> <p>Progression Y3 Skills</p> <p>Pupils can collect, analyse, evaluate and present data and information.</p> <p>Design a simple questionnaire to collect information.</p> <p>Add information to a database or spreadsheet</p> <p>Filter and sort records in a database to answer questions.</p> <p>Pupils understand that search engines store information in databases.</p>	<p>NCCE Events and Actions 3.6</p> <p>Progression Y3 SKills</p> <p>Pupils can detect potential problems in an algorithm and offer ideas on how this could be fixed/debugged.</p> <p>Pupils can use decomposition to solve problems..</p>	<p>NCCE Desktop publishing 3.3</p> <p>Progression Y3 SKills</p> <p>Pupils are confident and creative users of technology and can create digital content using a range of mixed tools/media to improve its design, e.g. text, graphics and sound to share ideas and learning.</p> <p>They understand that different programs work with different types of data, e.g. text, numbers, images etc.</p> <p>Pupils understand what programs/apps may be required to complete a task. e.g. Google Docs to create a document or iMovie to edit a video clip.</p>

	<p>RAPID ROUTER https://www.codeforlife.education/rapidrouter/</p> <p>Need to set up Teacher accounts and assign passwords to be able to save progress. Could start in lessons and then set them as homework tasks. Starts really easy, but then moves through a lot of more complex coding challenges in an accessible way.</p>	They can explain why copying someone else's work from the internet without permission can cause problems.	a 'fact'.			<p>Pupils have collaborated online to create digital content.</p> <p>Pupils demonstrate creativity and independence while using unfamiliar apps or technology to create content.</p> <p>Pupils understand the benefits of using a computer to create and present information.</p>
Year 3 Evidence	<p>NCCE Summative Assessment</p> <p>Work created during unit - identify best work and add to Portfolio</p>	<p>School Scratch account needed for all lessons.</p> <p>NCCE Summative Assessment</p> <p>Work created during unit - identify best work and add to Portfolio</p>	<p>NCCE Summative Assessment</p> <p>Work created during unit - identify best work and add to Portfolio</p>	<p>NCCE Summative Assessment</p> <p>Work created during unit - identify best work and add to Portfolio</p>	<p>NCCE Summative Assessment</p> <p>Work created during unit - identify best work and add to Portfolio</p>	<p>Work created and shared in Classroom.</p> <p>Teacher to take copies of good work and create a Slides to show skills used.</p> <p>NCCE Summative Assessment</p> <p>Work created during unit - identify best work and add to Portfolio</p>
Y3 Online Safety	<p>Project Evolve Privacy and Security</p> <p>I can describe how connected devices can collect and share</p>	<p>Project Evolve Copyright and Ownership</p> <p>I can explain why copying someone</p>	<p>Project Evolve Self Image</p> <p>I can explain what identity is and ways in which someone might</p>	<p>Project Evolve Managing Online Information</p> <p>I can explain the difference between belief</p>	<p>Project Evolve Online Relationships</p> <p>I can explain what it means to know someone online and why this</p>	<p>Project Evolve Online Bullying</p> <p>I can describe appropriate ways to</p>

	<p>anyone's information with others. I can describe strategies for creating and keeping passwords private</p>	<p>else's work from the internet isn't fair</p>	<p>change their identity. I can explain how people represent themselves in different ways online</p>	<p>, opinion and fact (fake news) I can demonstrate how to use key phrases when searching online</p>	<p>might be different to offline I can explain what it means to trust someone online</p>	<p>behave online I can give examples of bullying behaviour online</p>
<p>Y3 Cross Curricular Links</p>	<p>How do we use Google tools in lessons? How is it possible to collaborate on tasks online? Pick these up and link when used in other lessons.</p>	<p>DT: using online search skills to research branding. Link to copyright and the use of brand logos. Geography: teaching online search skills for reading mapping. Using Google tools to make maps - teaching how to use apps for a purpose.</p>	<p>English-Creating animations of fables and folktales. Creating dialogue/ narration for their animation. Art- Creating Indian art to use in animations. Topic- Research on the Indus Valley - teach online search skills. Science - creating labelled diagrams.</p>	<p>Science - creating labelled diagrams Geography: using mapping applications to look at the topography of mountains. English: Using programmes to create and edit persuasive films about protecting the environment.</p>	<p>Topic - Create a pyramid maze linked to Ancient Egypt. Use a background image of inside a pyramid for them to create a journey through.</p>	<p>The skills learned in this unit can be applied to all other subjects. Consider using skills to create engaging fact files or summaries of learning.</p>
<p>Year 4</p>	<p>NCCE 4.1 Computer Systems and Networks - The Internet</p> <p>Progression Y4 skills Pupils understand that different devices can be connected together to create a network e.g. in school and the internet. They can recognise the main components (hardware) which allow devices to join and form a network. They can say whether a resource,</p>	<p>NCCE 4.5 Programming - Repetition in shapes</p> <p>Progression Y4 skills Pupils can design an algorithm and relate the concept of algorithms back to everyday real-life activities. Pupils can demonstrate the skill of abstraction; e.g. they can define all the elements in something and then</p>	<p>Safer Internet Day</p> <p>NCCE 4. 2 Creating Media - Audio editing</p> <p>Software on Chromebooks: BANDLAB EDU - NCCE Planning being adapted by A Ouzouf for use on Chromebooks</p> <p>Progression Y4 skills Pupils are confident using a range of software/apps</p>	<p>NCCE 4.6 Programming - Repetition in games</p> <p>Progression Y4 skills Pupils can design an algorithm and relate the concept of algorithms back to everyday real-life activities. Pupils can demonstrate the skill of abstraction; e.g. they can define all the elements in something and then</p>	<p>NCCE 4.3 Creating Media - Photo Editing</p> <p>Progression Y4 skills Pupils are confident using a range of software/apps to create content e.g. films, animations, manipulate images, create illustrations, green screen etc. They understand what software/apps may be required to complete a</p>	<p>NCCE 4.4 Data Logging</p> <p>Progression Y4 skills Using an increasing range of digital resources pupils are beginning to make informed choices about the appropriateness of digital content they access and use to create content. Pupils are able to: - search and collect data e.g. within a database or spreadsheet, an external</p>

	<p>document or app they are using is on the Internet, the school network or their own device.</p> <p>Pupils understand that the internet provides multiple services, such as the world wide web. They can identify and discuss the key services that can be used to communicate on the internet.</p> <p>Pupils understand and can explain how their network and internet use can be monitored.</p> <p>Pupils understand certain documents can be shared and worked on collaboratively and understand the benefits of working online.</p>	<p>remove the ones that are not needed.</p> <p>Pupils can read through code and predict the outcome.</p> <p>Pupils can design and write a program for a given purpose and can explain the specific programming features they have used including</p> <ul style="list-style-type: none"> - repetition - e.g. count controlled loops and continuous loops - inputs - conditional selection - simple 'if statements' <p>Pupils can debug their own algorithm/program and debug errors in code. They can recognise an error in an existing program and suggest how it might be debugged.</p>	<p>to create content e.g. films, animations, manipulate images, create illustrations, green screen etc. They understand what software/apps may be required to complete a task, e.g. a document or edit a video clip</p> <p>Using an increasing range of digital resources pupils are beginning to make informed choices about the appropriateness of digital content they access and use to create content.</p> <p>Pupils are confident to explore new features, online tools and apps to extend what they can achieve, demonstrating creativity and independence while using unfamiliar apps or technology. They recognise that similar icons/features are present within apps and that these are consistent across different types of applications; e.g. the export/save button, the add image button or record button.</p>	<p>remove the ones that are not needed.</p> <p>Pupils can read through code and predict the outcome.</p> <p>Pupils can design and write a program for a given purpose and can explain the specific programming features they have used including</p> <ul style="list-style-type: none"> - repetition - e.g. count controlled loops and continuous loops - inputs - conditional selection - simple 'if statements' <p>Pupils can debug their own algorithm/program and debug errors in code. They can recognise an error in an existing program and suggest how it might be debugged.</p>	<p>task, e.g. a document or edit a video clip</p> <p>Using an increasing range of digital resources pupils are beginning to make informed choices about the appropriateness of digital content they access and use to create content.</p> <p>Pupils are confident to explore new features, online tools and apps to extend what they can achieve, demonstrating creativity and independence while using unfamiliar apps or technology. They recognise that similar icons/features are present within apps and that these are consistent across different types of applications; e.g. the export/save button, the add image button or record button.</p>	<p>device such as a data logger, and identify where it could be inaccurate</p> <p>Pupils can explain inputs and outputs and can give examples. They can explain the different functions you can do on a keyboard e.g. using ctrl + letters to perform some tasks (Ctrl C, Ctrl S, Ctrl P, Ctrl Z etc) use of Function Keys to control e.g. brightness, volume etc. Pupils can also identify differences on keyboards when using different devices.</p>
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<p>Year 4 Evidence</p>	<p>NCCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to Portfolio</p>	<p>School Scratch account needed for all lessons.</p> <p>NCCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to Portfolio</p>	<p>NCCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to Portfolio</p>	<p>School Scratch account needed for all lessons.</p> <p>NCCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to Portfolio</p>	<p>NCCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to Portfolio</p>	<p>NCCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to Portfolio</p>
<p>Y4 Online Safety</p>	<p>Project Evolve Health Wellbeing and Lifestyle</p> <p>I can explain how using technology can be a distraction</p> <p>I can identify times when people might need to limit their use of technology</p>	<p>Project Evolve Privacy and Security</p> <p>I can describe strategies for keeping personal information safe</p> <p>I can explain that the internet is never fully private</p>	<p>Project Evolve Copyright and Ownership</p> <p>I can explain why I need to consider who owns content when searching online (Creative Commons)</p> <p>I can give simple examples of content I shouldn't use without permission</p>	<p>Project Evolve Online Reputation</p> <p>I can explain how to find out information about others by searching online</p> <p>I can explain ways that information about someone online can be created, copied and shared by others</p>	<p>Project Evolve Online Bullying</p> <p>I can recognise when someone is hurt or angry online</p> <p>I can describe ways people can be bullied through a range of media</p>	<p>Project Evolve Online Relationships</p> <p>I can describe strategies for safe and fun experiences online</p> <p>I can give examples of how to be respectful to others</p>
<p>Y4 Cross Curricular Links</p>	<p>English: Create a non chronological report about the internet</p>	<p>Maths: links to 2D shapes</p>	<p>Making audio linked to English or any topic - Podcast</p>	<p>Games linked to any book, author or topic studied.</p>	<p>Using photos linked to any topic covered. Add photos into work created online or in books.</p>	<p>Maths/ Science: record real time data and use data collected to create reports/ tables/ charts.</p>

<p>Year 5</p>	<p>NCCE 5.2 - Vector Drawing</p> <p>Progression Y5 skills Pupils are confident, capable and creative users of both familiar and unfamiliar technology and can select the right program/app to complete the task. Pupils can share a document in order to collaborate. They understand the benefits of using technology to collaborate with others. When using unfamiliar technology pupils can use the skills they have already developed to create content using unfamiliar technology. They are able to evaluate new and unfamiliar technologies and discuss possible uses and discuss the tools within new technology. Pupils can evaluate their own content against success criteria and make improvements accordingly.</p>	<p>NCCE 5.5 Programming - Selection in physical computing</p> <p>HARDWARE: Crumbles/ MicroBits</p> <p>Progression Y5 skills Pupils independently employ strategies to solve problems e.g. decomposing a problem into smaller parts, plan, write and test their algorithms and programs, detecting and correcting errors as needed. They recognise that different solutions can exist for the same problem. Pupils can design an algorithm and write a more complex program that:</p> <ul style="list-style-type: none"> - use two-way selection i.e. if... then... else... within programs - use controlled repeat until loops - use a range of simple inputs and outputs that control or simulate physical systems and sensors with multiple outcomes. They can talk about how a computer model can provide information 	<p>Safer Internet Day</p> <p>NCCE 5.1 - Computing systems and networks: Sharing Information</p> <p>Progression Y5 skills Pupils understand the main functions of an operating system and recognise that different devices can have different operating systems, e.g. Windows, iOS, Android. Pupils can share a document in order to collaborate. They understand the benefits of using technology to collaborate with others. Pupils can explain about the hardware that connects computers together to form a network. They know how data is transmitted via the internet. Pupils can describe different services offered by the Internet (e.g. email, Audio and Video calls, VoIP - Voice over Internet Protocol services such as Skype, Google Hangouts), Instant Messaging, Streaming media, Wikis and blogs, Gaming and can explain how they could be used</p>	<p>NCCE 5.6 Programming - Selection in quizzes</p> <p>Progression Y5 skills Pupils independently employ strategies to solve problems e.g. decomposing a problem into smaller parts, plan, write and test their algorithms and programs, detecting and correcting errors as needed. They recognise that different solutions can exist for the same problem. Pupils can design an algorithm and write a more complex program that:</p> <ul style="list-style-type: none"> - use two-way selection i.e. if... then... else... within programs - use controlled repeat until loops - use a range of simple inputs and outputs that control or simulate physical systems and sensors with multiple outcomes. They can talk about how a computer model can provide information about a physical system and how this is useful in the real world. They are beginning to understand what a 	<p>NCCE 5.4 Flat file databases</p> <p>Progression Y5 skills Pupils are confident, capable and creative users of both familiar and unfamiliar technology and can select the right program/app to complete the task. Pupils can use a spreadsheet and database to collect, record, analyse, manipulate and re-present different types of data for a variety of audiences and purposes. They can:</p> <ul style="list-style-type: none"> - design online questionnaires to collect data on a theme - present sets of data in different graphical forms, to answer questions, discussing and evaluating which layout is best. - insert a graph in a document / presentation to share findings with others. <p>use tools with a spreadsheet and database to draw conclusions from data, understanding that they can influence the outputs of searches depending on</p>	<p>Knowsley - STEAM Challenges</p> <p>Progression Y5 skills Pupils are confident, capable and creative users of both familiar and unfamiliar technology and can select the right program/app to complete the task. Pupils are starting to go beyond the basic requirements of the task and use the more advanced tools and to think carefully about aesthetics, functionality and impact on the user. e.g. remix and edit existing and their own media to create new content and explain what they have used and why. Pupils can share a document in order to collaborate. They understand the benefits of using technology to collaborate with others.</p> <p>OR NCCE 5.3 Video Editing</p> <p>Progression Y5 skills Pupils are confident, capable and creative users of both familiar and unfamiliar technology and can select the right</p>
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		<p>about a physical system and how this is useful in the real world.</p> <p>After the code has been run, using logical reasoning, pupils can give a well thought through explanation of any errors they identify in program code and can suggest how this can be debugged.</p>	<p>for different purposes. They can explain some networking terms such as IP address, ping, ipconfig and tracert commands</p>	<p>variable is and recognise within a program e.g. to keep score or remove lives in a game and incorporate variables to increase programming possibilities.</p> <p>After the code has been run, using logical reasoning, pupils can give a well thought through explanation of any errors they identify in program code and can suggest how this can be debugged.</p>	<p>the input e.g. +, AND, -, NOT</p>	<p>program/app to complete the task.</p> <p>When creating short videos and audio clips pupils can sequence, edit and enhance the end product by using the editing tools to add additional elements. For example, trim and reorder clips, add images and voice-overs to a video, add background music, sound effects, jingles, titles and credits, use blur, filters, speed up/slow motion within videos etc.</p>
<p>Year 5 Evidence</p>	<p>Copies of vector images created in Google Drawing and shared in Classroom. Teacher to collect examples of good work and share in a Slides presentation.</p> <p>NCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to Portfolio</p>	<p>School Scratch account needed for all lessons. Scratch programs created by pupils and shared in the class Scratch Studio. Collate links to examples of work in a Google Doc for accessing.</p> <p>NCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to</p>	<p>Short non chronological report/ leaflet sharing what they have learned.</p> <p>NCE Summative Assessment</p>	<p>School Scratch account needed for all lessons. Scratch programs created by pupils and shared in the class Scratch Studio. Collate links to examples of work in a Google Doc for accessing.</p> <p>NCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to</p>	<p>Copies of tasks completed in Classroom. Final real world task completed in Classroom to show application of skills.</p> <p>NCE Summative Assessment</p> <p>Work created during unit - identify beast work and add to Portfolio</p>	<p>STEAM: Evidence of work completed in each task (Seesaw videos/ pictures). Pupils evaluation of what they have learned about STEAM at the end of the unit</p> <p>Videos: final work shared (Seesaw). Pupil evaluation of their work in this unit and the skills that they have used/ learned.</p> <p>Work created during unit - identify beast</p>

		Portfolio		Portfolio		work and add to Portfolio
Y5 Online Safety	Project Evolve Self Image and Identity I can how identity can be copied and altered online I can demonstrate how to make responsible choices about my online identity	Project Evolve Managing Online Information I can explain the benefits and limitations of using different types of search technologies I can evaluate digital content and explain how to make choices	Project Evolve Online Bullying I can recognise that online bullying can be different from the physical world] I can explain how anyone can get help when bullied online	Project Evolve Online Reputation I can explain how information about anyone can be used to make judgements and why these may be incorrect	Project Evolve Copyright and Ownership I can assess and justify when it is ok to use the work of others I can give examples of work that is ok to reuse and know where to find it (Creative Commons)	Project Evolve Health and Wellbeing I can describe ways that technology can affect health and wellbeing both positively and negatively I can explain why some apps might take additional payments and the need for permission
Y5 Cross Curricular Links	Creating subject specific vector art/ logos English: Creating a set of instructions on how to create vector images in Google Draw		English/ Topic: Working collaboratively to complete a research task	Maths: creating maths linked quizzes Science: creating topic quizzes (Space, Forces etc)	Creating databases of results in maths/ science Topic: databases for major rainforests, largest earthquakes etc	PSHE; stereotypes and self image
Year 6	Google Applied Digital Skills Write an If-Then adventure story https://applieddigitalskills.withgoogle.com/c/middle-and-high-school/en/if-then-adventure-stories/overview.html Progression Y6 skills		Safer Internet Day NCCE 6.3 Web page creation Progression Y6 skills Pupils can explain how to protect computers or device from harm on the Internet. They		NCCE 6.4 Spreadsheets Progression Y6 skills They identify, collect and analyse different types of data (e.g. Numerical, words, images, video etc.) which they manipulate and re-present as	

	<p>Pupils challenge themselves by making simple programs increasingly complex and employ a variety of strategies to solve problems, recognising similarities to solutions used before and using the principles of logical thinking, decomposing, abstraction plus imagination and creativity.</p> <p>They can explain why they have structured algorithms as they have and describe the effect this has on a program.</p> <p>Pupils repeatedly experiment through predicting, making, testing and debugging. They can identify patterns in problems and solutions.</p> <p>Pupils persevere even if the solution is not obvious.</p> <p>Pupils:</p> <ul style="list-style-type: none"> - understand the difference between and use if... then... and if... then... else... statements - understand what a variable is and recognise a variable within a program - can use selection and work with variables for example they can combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done" - use procedures in programs to create a sub-routine e.g. a procedure called 'square' in Logo - understand and use nested loops <p>Pupils can evaluate the effectiveness and</p>	<p>understand that viruses and other types of malware including spyware, worms and trojans are small programs designed to cause trouble by gaining access to your device. They know that anti-virus software can help protect devices from infection. They can explain what some of the following terms are - antivirus, firewall, security updates, pop up blocker, scams, phishing, HTTPs, location based settings, in app purchasing, trolling, filtering, malware, etc.</p> <p>Pupils can use a keyboard confidently and use several common keyboard shortcuts e.g. Ctrl A, Ctrl C, Ctrl V. They can also use voice recognition tools to speed up text entry. They know how to use Immersive reader tools within different online tools and apps.</p> <p>Pupils can independently select, use and combine the appropriate multimedia tools/apps, with confidence to create effects that will have an impact on others. e.g. edit pictures using various tools / photo manipulation software.</p> <p>Pupils can produce digital content that has a consistent theme and shows they thought about design and the impact on their audience, e.g. in presentation/digital books animations and links to other slides when objects are pressed, tables and graphs.</p>	<p>information for a variety of audiences and purposes.</p> <p>They can:</p> <ul style="list-style-type: none"> - independently design online questionnaires and use to collect a range of data on a theme - use a spreadsheet to help to solve problems - they understand the difference between a formula (starts with an = sign and is a user-defined calculation such as =a1+a3 or =(D1+D2)/A\$3) and a function (built-in operation, such as SUM(), AVERAGE())
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	efficiency of their and other's algorithms and programs based on success criteria and make improvements to their work accordingly and give appropriate feedback					
Year 6 Evidence	Work created during unit - identify best work and add to Portfolio		NCCE Summative Assessment Work created during unit - identify best work and add to Portfolio	NCCE Summative Assessment Work created during unit - identify best work and add to Portfolio		
Y6 Online Safety	Project Evolve Privacy and Security I can explain effective ways to manage passwords I can describe ways to increase privacy	Project Evolve Online Bullying I can describe how to capture bullying content as evidence I can explain to someone how to report online bullying	Project Evolve Online Reputation I can explain ways to develop a positive online reputation I can explain ways to use and protect their digital personality	Project Evolve Copyright and Ownership I can use search tools to find what is acceptable to use I can demonstrate how to make references and acknowledge sources	Project Evolve Self Image and Identity I can evaluate online content relating to gender, race, religions, disability, culture and other groups I can explain the importance of asking till I get the help I need	Project Evolve Managing Online Information I can how and why some people may present opinions as facts
Y6 Cross Curricular Links	Creating interactive stories linked to any book/ topic studied.		English: Creating a web page for a book/ author Topic: creating a web site about a topic studied Transition - creating a website about themselves to sell their skills/ successes to their new high school	Maths/ Science: creating a spreadsheet to organise and analyse data - creating charts to present data SATs use their own spreadsheets to analyse school/ local/ national SATs data		