



Subject -	Year 3	Topics: Typing Skills, Word processing, Programming , Research , Presenting , Desktop Publishing	
 <p>Computing</p>	Key learning from national curriculum for year 3 – Please note on line safety needs to be covered at the beginning of every unit taught; the first week of each half term.		
	<p>Typing: Children to be proficient and increasingly quick at using the keyboard to type, save and print work. The aim is to ensure children have the basic skills to help them achieve their objectives across all the other computing units and in other subject areas.</p>	<p>Word Processing: In this unit, children will learn to use various features for formatting text. The lessons, which are intended to be used at the start of the school year, focus on some important computer skills and introduce children to screenshots and the Snipping Tool, and secure use of passwords.</p>	
	<p>Programming: The Programming Turtle Logo and Scratch unit will teach your class to create and debug algorithms. Following on from the earlier Year 2 unit on Preparing for Turtle Logo, the children use the basic commands in Logo to move and draw using the turtle on screen, and then further develop algorithms using the “repeat” command. These skills are then developed by teaching children to create algorithms in Scratch using a selection of blocks.</p>	<p>Research: This unit focuses on how to effectively search using key words and how to safely communicate online. The lessons focused on Internet research will demonstrate the importance of word order when searching. They will also start to examine the results returned and how to distinguish between a reliable and unreliable website or webpage. Children will learn to save webpages in a browser, as well as in a file or folder. They will also understand how this can be shared with others. Children will identify ways of communicating online, how they can keep safe and the importance of being responsible while communicating online with others.</p>	
	<p>Presenting: This unit develops the children’s use of presentation software. The first three lessons teach the children new skills, set the theme, slide transitions, animating objects onto the slide, creating hyperlinks in the action settings and adding other media to their presentations.</p>	<p>Desktop Publishing: This unit is aimed at developing children’s graphic and presentation skills by introducing drawing. It also goes on to further children’s understanding of layouts using a desktop publishing application. Children will learn to draw, order, group and manipulate objects to make a picture. They will also learn to evaluate and create effective layouts, combining text and images. The Lesson Pack contains six Lesson Plans, each with their own Lesson Presentation, alongside challenge cards, home learning tasks, posters and word cards.</p>	
<p style="text-align: center;">intent</p> <p>To deliver and provide pupils with a high-quality computing education.</p> <ul style="list-style-type: none"> Equip pupils with skills and knowledge to use computational thinking and creativity in an ever changing world where computing is an integral part of everyday life. Allow and give opportunities for pupils to use the skills to enable them to use computers, tablets and other hardware effectively for a range of purposes. For pupils to understand the need to be safe online and use a variety of software to enhance thinking and development. 	<p style="text-align: center;">implementation</p> <ul style="list-style-type: none"> Well planned and considered lesson structures – ensuring skills and knowledge are covered and built on Have regular, purposeful use of devices, such as computers, tablets and ipads - showing independence and confidence inspire pupil’s curiosity, creativity and experimentation through teacher modeling, examples, direct instruction and pupils application. use of age appropriate programs and software (see above) equip them to solve problems create algorithms to achieve a given objective. An online-safety lesson must be taught the first week of each half term. 	<p style="text-align: center;">impact</p> <p>Teachers will observe and see evidence of..</p> <ul style="list-style-type: none"> application of computing skills and knowledge through a range of concepts. refer to use of computing terminology and vocab across a range of subjects. Use of enquiry and questioning. increasingly independent research and discerning selection of data formal assessment against a given set of criteria & an assessment level is reported to parents as part of the end of year report. pupils will be more confident, independent, self-reflective learners; able to transfer skills and knowledge from one concept to another. 	

Prior learning	Future learning
<p><u>Ks1 National Curriculum coverage:</u></p> <ul style="list-style-type: none"> . understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions . create and debug simple programs . use logical reasoning to predict the behaviour of simple programs . use technology purposefully to create, organise, store, manipulate and retrieve digital content . recognise common uses of information technology beyond school . use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. 	<p>Y4 Topics: Scratch Programming, Turtle Programming, Word Processing, Animation, Photostory Publishing, Using & Applying – see y4 section of document.</p> <p>Y5 Topics: Touch-Typing, Scratch Programming, Word Processing, 3dModelling, Excel, +1 other TBC</p>

What pupils need to know or do to be secure (Y3)

Topic – Typing and using school network (*explore Nessy fingers) (suggested 6 sessions)	Topic – Word Processing (suggested - 4-6 sessions, from Twinkl unit planning. Using word from Microsoft)	Topic – Programming (suggested - 6-7 sessions, from Twinkl. Using programs - Turtle and Scratch unit)	Topic - Research (suggested - 5-6 sessions, from Twinkl Research unit)	Topic – Presenting (suggested - 5-6 sessions from Twinkl Presenting unit, using Powerpoint)	Topic – Desktop Publishing (suggested 5-6 sessions from Twinkl Publishing unit using Publisher, Paint or similar)
Key learning / knowledge / skills	Key learning / knowledge / skills	Key learning /knowledge / skills	Key learning / knowledge / skills	Key learning / knowledge / skills	Key learning / knowledge / skills
<p>Children should be able to:</p> <ul style="list-style-type: none"> . Can use shift key for !"£%&() symbols . Can edit colour, font and size . Can save their work into pupil folder . Can save their work as screenshot using snipping tool . Can find and open their file using school network 	<p>Children should be able to:</p> <ul style="list-style-type: none"> • Use undo and redo. • Make text bold, italic or underline. • Select text in different ways. • Change case. • Align text. • Select text in different ways. • Format images. • Use an effective layout. • Use the Snipping Tool. • Use bullets and numbering effectively. 	<p>Children should be able to:</p> <p>Create and debug algorithms to draw regular polygons using the repeat command/ block (Turtle Logo and Scratch)</p> <p>Draw shapes with spaces between using penup and pendown (Turtle Logo)</p> <p>Change and alter the pen settings (Scratch)</p>	<p>Children should:</p> <ul style="list-style-type: none"> • know and understand how word order affects the results returned. • know how to bookmark or favourite a page and name different types of online communication. • know what to do if they feel uncomfortable when communicating online. • identify how they should behave online. • Explain why particular results are returned by a search engine. 	<p>Children should be able to:</p> <ul style="list-style-type: none"> • Create a simple presentation • Create shapes • Create a hyperlink to another slide • Use slide transitions • Plan a branching story • Create simple slide templates • Copy as organize slides as required 	<p>Children should be able to:</p> <ul style="list-style-type: none"> . Draw objects • Manipulate objects. • Create a layout of objects with no unnecessary space using colour and font effectively. • Order and group objects. • Move, resize and arrange text boxes and images effectively.

	<ul style="list-style-type: none"> • Insert and format text boxes effectively. • Select single words. • Cut, copy and paste text. • Format the font. • Insert images. • Copy a screenshot into another application. • Use a secure password. • Use <ctrl> keyboard shortcuts. 	<p>Draw regular polygons using Logo to calculate the angle (Turtle Logo)</p> <p>Create and debug algorithms to draw patterns by repeating regular polygons (Scratch)</p>	<ul style="list-style-type: none"> • explain who can access their online communication when they use different forums. • know how and why online activity leaves a digital footprint. 	<ul style="list-style-type: none"> • Use animations to introduce objects to a slide • Evaluate the layout of presentation slides effectively. 	
Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary
Shift (key), names for common punctuation symbols, font, size, save, screenshot, snipping, file,	Undo, redo, bold, italic, underline, select, case (ie upper and lower), align, format, layout, snipping tool, bullet points, text box, cut, copy, paste, font, insert, screenshot, password, ctrl, shortcut	Algorithm, debug, polygon, repeat + vocab specific to Turtle (fd, bk, rt, lt, pu, pd, clean) and Scratch (eg, Sprite, stage)	Search, site, pop-up, search engine, network, webpage, world-wide web, rank	Presentation, autoshape, hyperlink, transition, template, animation	Desktop publishing, layout, move, resize, text box, image (+ vocab from prior units taught)
Online-Safety					
<p>Taught the first lesson of each half term. To follow. Online-safety progression document requiring update.</p>					

Subject -	Year 4	Topics: Scratch Programming, Turtle Programming, Word Processing, Animation, Photostory Publishing, Using & Applying		
 <p>Computing</p>	<p>Scratch - This unit follows up the earlier units on programming Scratch. In this unit the children write quizzes by combining questions. While specific skills in Scratch are taught, the unit aims to teach children the wider programming skills of solving problems, testing, debugging, improving and evaluating.</p>		<p>Animation - This unit teaches children the basic principles and techniques of simple animation. Beginning with the history of animation, children research some of the early inimation techniques used before the use of computers. The lessons then compare a range of free animation software and children incorporate the different techniques into their own animation. After experimenting, children are then given the opportunity to evaluate their experiences in the final lesson.</p>	
	<p>Programing – Turtle: Pupils have explored Turtle in y3 and should know the basic commands. This Programming Turtle Logo unit will teach children how to create an algorithm to program a procedure. Lessons are designed to be used with Turtle Logo. Children are reminded of the basic commands and how to repeat alongside a variable. The children are then shown how to program their own procedures, use colour and set the position of the turtle using coordinates. In the concluding lesson they use the arc command to create patterns using different shapes and randomly selected colours, which they are encouraged to share with the rest of the class.</p>		<p>Photostory- This unit introduces children to two different software choices for a creative way of presenting digital photos. Using existing images or photos taken in advance, children spend three lessons learning skills in Microsoft Publisher and a further three lessons using Windows Movie Maker. In each case, the intended finished result is to present a ‘photo story’ using their still images.</p>	
	<p>Word-Processing – This is the fourth word processing unit, following the units in year 1, 2 and 3 aimed at teaching basic and word processing and text formatting skills. In this unit children will learn about formatting images and organising content into and effective layout. The unit contains six lesson packs, each with its own lesson presentation, alongside a home learning task, challenge cards, display posters and help cards. The first lesson focuses on formatting images and making them suitable for a poster advertising a cake sale. Throughout the rest of the unit, children will learn new skills and techniques and apply them to creating a range of different word documents (posters, letters to parents, job rotas, recipe cards and e-vouchers) which they will use during the cake sale project.</p>		<p>Using and Applying Unit - The purpose of the ‘Using & Applying’ unit is to provide an engaging, open-ended project for pupils to apply the skills they have developed by working on other units within the year group. Designed to be completed by pupils in groups working over a number of lessons (such as a final half-term), the project incorporates software, skills and aims that have been covered in previous units. Pupils should be encouraged to plan activities thoroughly before dividing up the separate tasks required to complete the whole project. Different elements of the project can be completed by different children, who will combine their work at the end, but must communicate and work together as a team throughout.</p> <p>Ideally, there should be an opportunity for children to present their finished projects. This could be either to the rest of the class or a wider school audience.</p>	
<p>intent</p> <p>To deliver and provide pupils with a high-quality computing education.</p> <ul style="list-style-type: none"> Equip pupils with skills and knowledge to use computational thinking and creativity in an ever changing world where computing is an integral part of everyday life. 		<p>implementation</p> <ul style="list-style-type: none"> Well planned and considered lesson structures – ensuring skills and knowledge are covered and built on Have regular, purposeful use of devices, such as computers, tablets and ipads - showing independence and confidence 		<p>impact</p> <p>Teachers will observe and see evidence of..</p> <ul style="list-style-type: none"> application of computing skills and knowledge through a range of concepts. refer to use of computing terminology and vocab across a range of subjects. Use of enquiry and questioning.

<ul style="list-style-type: none"> Allow and give opportunities for pupils to use the skills to enable them to use computers, tablets and other hardware effectively for a range of purposes. <p>For pupils to understand the need to be safe online and use a variety of software to enhance thinking and development.</p>	<ul style="list-style-type: none"> inspire pupil’s curiosity, creativity and experimentation through teacher modeling, examples, direct instruction and pupils application. use of age appropriate programs and software (see above) equip them to solve problems create algorithms to achieve a given objective. <p>An online-safety lesson must be taught the first week of each half term.</p>	<ul style="list-style-type: none"> increasingly independent research and discerning selection of data formal assessment against a given set of criteria & an assessment level is reported to parents as part of the end of year report. <p>pupils will be more confident, independent, self-reflective learners; able to transfer skills and knowledge from one concept to another.</p>
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Prior learning	Future learning
<ul style="list-style-type: none"> KS1 National Curriculum Y3 units – Touch Typing, Programming, Word Processing, Animation, Photostory, Desktop Publishing, see above 	<ul style="list-style-type: none"> Y5 topics: Touch-Typing, Scratch Programming, Word Processing, 3dModelling, Excel, +1 other TBC Y6 topics: Touch-Typing, Scratch Animation, Film Making, Spreadsheets, Tessellating Images and Using and Applying


What pupils need to know or do to be secure (Y4)

Topic – Programming – Scratch (suggested - 6-7 sessions, from Twinkl. Using programs - Turtle and Scratch unit)	Topic – Programming – Turtle (see Twinkl unit plans, link to art)	Topic – Word Processing (applying to foundation)	Topic – Animation (refer to Twinkl unit plans, using ‘Pivot Animator app)	Summer – Photo Story (refer to Twinkl unit plans, uses Photo Story and Movie-Maker)	Topic – Using and applying (refer to Twinkl unit plans. Uses Software from through the year)
Key learning / knowledge / skills	Key learning / knowledge / skills	Key learning /knowledge / skills	Key learning / knowledge / skills	Key learning / knowledge / skills	Key learning / knowledge / skills
<p>Children should be able to:</p> <ul style="list-style-type: none"> . Use repetition and selection. . Work with variables and adjust these depending on the effect they wish to create. . Understand and use the duplicate function. 	<p>Children should be able to:</p> <ul style="list-style-type: none"> . Write procedures using simple algorithms. . Change the colour of the pen. . Write text using the label command. . Fill shapes in different colours. . Draw arcs of different sizes as required. 	<p>including touch typing (Nessy fingers.com/ typekids.com or y5 one)</p> <p>Children should be able to:</p> <ul style="list-style-type: none"> . select, edit and manipulate text in different ways; . insert an image into a document; . format an image; use formatting tools to improve the layout; . use the spellcheck tool; . insert a simple table; 	<p>Children should be able to:</p> <ul style="list-style-type: none"> . Explain what is meant by animation. . Create a series of linked frames that can be played as a short animation. . Control and adjust a time slider to locate a different point in a film clip. . Insert images to create a simple stop-motion animation short film clip. 	<p>Children should be able to:</p> <ul style="list-style-type: none"> . Add and manipulate images and text in a Desk Top Publisher. . Add and sequence images, text and audio in Video Editing Software. . Use advanced cropping techniques. . Create consistent presentation effects to 	<p>Year 4 Project: My Cartoon Character</p> <p>Refer to guidance from the Twinkl unit. This project can be completed in a number of different ways depending on the children’s prior experience of specific software, or the guidance of an adult or teacher. Allow the children to work and</p>

<p>. Demonstrate that they understand how to combine a range of different effects to create their own quiz. . Design a program. . Successfully decompose a problem into its smaller parts. . Analyse the software to check it is fit for purpose. . Build on their existing knowledge to experiment and innovate when programming.</p>	<ul style="list-style-type: none"> • Create sophisticated algorithms and procedures. • Include procedures with variables 	<ul style="list-style-type: none"> . change the size of the page. . use some of the main keyboard shortcuts; . suggest ways to improve a layout; . apply specific effects to an image; . add a spelling to the spelling dictionary; . add or delete rows or columns in a table; . suggest ways to change a table; . type at an appropriate speed; . choose a relevant website to link a document to; . create a hyperlink. 	<ul style="list-style-type: none"> . Evaluate the good and bad points about some animation software. . Describe one or more traditional methods of animation. . Make slight changes to an image using onion skinning, understanding the term. . Use a time slider to find a specific point in a film clip to insert or edit an object. . Edit and refine images in a stop-motion animation short film clip. . Compare different animation software by analysing good and bad points. 	<p>achieve a particular style in a Desk Top Publisher. . Use a consistent design in Video Editing Software. . Create the look and feel of a movie using still images, including beginning and end sequences. . Layer images and text. . Add effects to improve images in a Desk Top Publisher. . Refine audio and captions in Video Editing to compliment an image sequence.</p>	<p>discuss ideas in their groups before offering assistance with the Activity Sheets if possible. This will encourage the children’s own original ideas and a problem-solving focus. An emphasis is placed on children choosing the software they feel familiar with or the most skilled at using, as well as what would be appropriate for the activity in hand.</p>
Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary
Debug, programming block, sequence, selection, repetition, variable(s), design, block commands, numerical value	Procedure, algorithm, Turtle codes - such as: fd, bk, rt, lt, clean etc., arc, variable	Select, format, image, spellcheck, layout, hyperlink, vocab relating to CTRL commands	Animation, frame, insert, clip, stop-motion,	Desk-Top publisher, edit, still image, vocab related to Photostory and Movie-Maker apps	Vocab consolidated from through the year.

Online-Safety

Taught the first lesson of each half term. To follow. [Online-safety progression document requiring update.](#)

Subject -  Computing	Year 5	Topics: Touch-Typing, Scratch Programming, Word Processing, 3dModelling, Flowol, Internet research and web page design	
	Topic: Touch Typing	explore this area and add a scheme when decided upon – y5 may be using a good scheme currently for typing	Topic: 3d Modelling: In this unit the children extend their drawing skills to create 3D models based on using the software SketchUp Make (a free application available for download on Windows). Children will learn how to create simple and complex 3D models. They will be able to add detail and manipulate 3D models using a variety of tools.
	Topic: Scratch Developing Games: This unit builds on the previous unit in Year 4 (Questions and Quizzes) using Scratch to build and edit algorithms for simple games. The unit is designed to help children develop their skills in writing their own algorithms as well as editing and debugging existing codes.		Topic: Flowol – This unit introduces children to flowcharts and how they are used to program and control devices. Lessons are designed to be used with Flowol software (version 4.0), which includes simulations of real life automatic computer systems. Children are taught to build sequences of instructions, control multiple outputs and structure algorithms with decisions and inputs.
	Topic: Word Processing		Topic: Internet research and web page design – This unit combines the further development of children's skills for searching the internet with the introduction of creating and editing a webpage using Google sites.

<p style="text-align: center;">intent</p> <p>To deliver and provide pupils with a high-quality computing education.</p> <ul style="list-style-type: none"> Equip pupils with skills and knowledge to use computational thinking and creativity in an ever changing world where computing is an integral part of everyday life. Allow and give opportunities for pupils to use the skills to enable them to use computers, tablets and other hardware effectively for a range of purposes. <p>For pupils to understand the need to be safe online and use a variety of software to enhance thinking and development.</p>	<p style="text-align: center;">implementation</p> <ul style="list-style-type: none"> Well planned and considered lesson structures – ensuring skills and knowledge are covered and built on Have regular, purposeful use of devices, such as computers, tablets and ipads - showing independence and confidence inspire pupil's curiosity, creativity and experimentation through teacher modeling, examples, direct instruction and pupils application. use of age appropriate programs and software (see above) equip them to solve problems create algorithms to achieve a given objective. <p>An online-safety lesson must be taught the first week of each half term.</p>	<p style="text-align: center;">impact</p> <p>Teachers will observe and see evidence of..</p> <ul style="list-style-type: none"> application of computing skills and knowledge through a range of concepts. refer to use of computing terminology and vocab across a range of subjects. Use of enquiry and questioning. increasingly independent research and discerning selection of data formal assessment against a given set of criteria & an assessment level is reported to parents as part of the end of year report. <p>pupils will be more confident, independent, self-reflective learners; able to transfer skills and knowledge from one concept to another.</p>
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Prior learning	Future learning
<ul style="list-style-type: none"> see KS1 NC, above 	Y6 topics: Touch-Typing, Scratch Animation , Film Making , Spreadsheets, Tessellating Images and Using and Applying

<ul style="list-style-type: none"> Y3 topics: Scratch Programming, Turtle Programming, Word Processing, Animation, Photostory Publishing, Using & Applying Y4 topics: Scratch Programming, Turtle Programming, Word Processing, Animation, Photostory Publishing, Using & Applying 	
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What pupils need to know or do to be secure (y5)

Topic – Touch typing	Topic – Scratch – developing games	Topic – Word / Powerpoint	Topic – 3d Modelling (Sketch-up)	Topic – Controlling devices - Flowol	Topic – Internet research and web page design
Key learning / knowledge / skills	Key learning / knowledge / skills	Key learning /knowledge / skills	Key learning / knowledge / skills	Key learning / knowledge / skills	Key learning / knowledge / skills
To follow.	<p>Children should be able to:</p> <ul style="list-style-type: none"> . Move and edit blocks as part of an algorithm. . Program an algorithm as a sequence of game instructions with actions and consequences. . Add additional effects and features, such as sound or point scoring, to enhance the appeal of a game 	<p>Children taught the basic functions of both pieces of software in the first two sessions, and then put these into practice in other lessons. Every week, one of the lessons for the other subjects would be computer based to allow the children to build on the skills taught at the beginning of the unit. Skills revised include how to open and save documents, change font, size and colour, add text boxes, borders, tables, use themes to apply to presentations, add in images, shapes, and video clips.</p>	<p>Children should be able to:</p> <ul style="list-style-type: none"> . Draw 2D shapes or lines. . Draw simple 3D models. . Manipulate 2D shapes into 3D shapes. . Import 3D models from the 3D warehouse. . Use a range of SketchUp tools including: shape, push, pull, orbit, pan, zoom, erase and fill. . Draw and manipulate 3D models independently. . Use inference points to draw lines and shapes. . Use a wide range of SketchUp tools and concepts including: the dimensions toolbar and guides, tape measure, zoom extents and the 3D warehouse. . Draw and manipulate scale 3D models. . Select the correct tools for different features. 	<p>Children should be able to:</p> <p>Follow written instructions to draw a simple flowchart.</p> <ul style="list-style-type: none"> . Insert symbols into a flowchart. . Add inputs into a flowchart. . Identify conventional symbols, understanding the process of each stage . Create a program to control a simple sequence. . Modify symbols in a flowchart for effect. . Create flowcharts for multiple inputs and outputs. . Use decisions and subroutines. . Program inputs and outputs 	<p>Children should be able to:</p> <ul style="list-style-type: none"> . comment on the features and layout of a webpage. . create a webpage with a chosen layout and format text in the webpage. . Search for images that can be used in the document. . insert and format an image. . create hyperlinks . share a webpage so it can be viewed by anyone . use advanced features of a Google web search
Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary

	Algorithm, sequence, selection, debug, repeat, command, costume, sprite, stage		2d and 3d shape names, program specific vocabulary, (such as: push, pull, orbit, pan) inference point, scale		
Online-Safety					
Taught the first lesson of each half term. To follow. Online-safety progression document requiring update.					

Subject -	Year 6	Topic: Touch-Typing, Scratch Animation , Film Making , Spreadsheets, Tessellating Images and Using and Applying	
 <p>Computing</p>	Touch Typing: look into touch typing units.		<p><u>Spreadsheets</u> - Children are given an understanding of spreadsheets and how they can be used. In the first five lessons, a different spreadsheet template is provided in which children learn skills in formatting and entering specific formulas. Lessons 4 and 5 include investigative skills in using the spreadsheet to solve specific problems.</p> <p>Examples include number calculations, sports league tables, test scores, and budget planning. The final lesson allows an open-ended task for pupils to design their own spreadsheet, with ideas and direction provided for particular purposes. This final lesson can also be used for some pupils to return to or complete any previous spreadsheet tasks which may not have been finished.</p>
	<p><u>Scratch Animated Stories</u> - This unit builds on the previous unit in Year 5 (Scratch: Developing Games) as well as prior units introducing Scratch in Year 3 and Year 4. The unit is designed to help children in continuing to develop their skills in writing their own algorithms as well as editing and debugging existing codes. New skills are introduced to structure code and animate characters and scenes, gradually building to create a short animated story. These lessons are intended for use in conjunction with Scratch 2 software installed. They can also be used with the Pyonkee App on iPads.</p>		<p>Tessellating Images: This is not a Twinkl unit. Please can y6 provide information here on what you currently do in this unit. Add as much detail as you can. Thanks.</p>
	<p><u>Film Making</u> - This aim of this unit is to allow children to explore various aspects of film-making. In doing so, they must choose and use appropriate software in order to complete tasks such as writing a script, researching information, filming and editing. As well as using digital devices for recording (video camera or tablet), children work through pre- and post-production stages, planning good-quality interviews for a documentary and completing the process with use of video editing software such as Windows Movie Maker. You may like to complete the unit with a special screening or awards ceremony for the budding young film-makers!</p>		<p><u>Using and Applying</u> - Can you design and plan the launch of a new game or app? <i>Y6 Using and Applying Skills Computing Project: to be completed over a series of lessons.</i></p>
<p>intent <i>(reason for teaching – the why the knowledge and skills that need to be acquired at given stages)</i></p>		<p>implementation <i>(What we are doing – the how - a framework over time into a structure and narrative, within our context)</i></p> <p>impact <i>(So what? Evaluating what knowledge and skills pupils have gained against expectations set by the context.)</i></p>	
<p>Prior learning</p>		<p>Future learning</p>	
<ul style="list-style-type: none"> Y3 topics: Scratch Programming, Turtle 		<p><u>KS3 National Curriculum - Pupils should be taught to:</u></p>	

<p>Programming, Word Processing, Animation, Photostory Publishing, Using & Applying</p> <ul style="list-style-type: none"> Y4 topics: Scratch Programming, Turtle Programming, Word Processing, Animation, Photostory Publishing, Using & Applying Y5 unit Topics: Touch-Typing, Scratch Programming, Word Processing, 3dModelling, Excel, +1 other TBC 	<ul style="list-style-type: none"> design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal] understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns
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What pupils need to know or do to be secure (y6)

Topic – Touch typing	Topic – Scratch Animated Stories	Topic – Film making	Topic – Spreadsheets	Topic – Tessellating patterns	Topic – Using and applying / website design
Knowledge / Skills	Knowledge / Skills	Knowledge / Skills	Knowledge / Skills	Knowledge / Skills	Knowledge / Skills
<p>explore typing schemes (y5 typing club.com / Dance mat or another)</p>	<p>Children should be able to:</p> <ul style="list-style-type: none"> . Select appropriate characters to match a scene. . Animate characters with movement and speech in a story scene. . Use broadcast and receive blocks correctly in code. . Use show and hide blocks correctly in code. 	<p>Children should be able to:</p> <ul style="list-style-type: none"> . plan and write a script using appropriate software; . search for relevant information using appropriate websites; . use a digital video camera (or similar device) to record; . plan suitable questions to ask an interviewee; 	<p>Children should be able to:</p> <ul style="list-style-type: none"> . Enter text and numbers into a spreadsheet. . Identify and refer to cells by row and column. . Begin to enter formulae with the SUM function. . Enter and edit text. . Numbers and formulae purposefully and independently. 	<p>Need help from y6 with this as is not a Twinkl unit. Please could you provide any detail in here on what you currently do. Thanks.</p>	<p>Children should be able to:</p> <ul style="list-style-type: none"> . Select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

	<ul style="list-style-type: none"> . Create a sequence of story scenes with added audio. . Structure and sequence the animation of characters in each scene. . Use the repeat command to create animation effect. . Make a character visible or invisible at the correct times. . Use rapid costume changes to give an animation effect. Add interactive features to a scene. 	<ul style="list-style-type: none"> . import video files into video editing software. . structure the timing of sections to meet a given running time; . cross-check information using different sources; . use a variety of camera angles and shots to record; . improvise and react to responses by an interviewee; . preview a movie project using software and refine . plan additional elements for film-making such as locations and props; . evaluate whether information is reliable or not; . frame an appropriate filming shot when interviewing; . arrange video files to form a complete film. 	<ul style="list-style-type: none"> . Understand the advantages of spreadsheets over comparative manual methods. . Explore further functions. . Select data and create graphs with appropriate formatting. . Design their own spreadsheet for a specific purpose and present it appropriately. . Be able to enter formulae into cells. . Edit data and discuss the effect on results. . Use further functions including AVERAGE, MIN and MAX. . Create graphs. . Design their own spreadsheet for a specific purpose. 		<ul style="list-style-type: none"> . Children research and design the content for a new game using known software, then plan a launch for the game with a website or advert. . design a new game, using appropriate software to present information and advertise a product launch.
Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary
	Consolidation of Scratch vocab, structure, sequence, debug, algorithm, repeat, animate	Consolidate AV vocabulary, timing, import, arrange, preview, reliable, Production, post-production, edit, import, split, trim.	Spreadsheet, cell, row, column, formula, formulas/formulae, calculate, format, average, percent, edit, insert, ascending, descending		Product Launch, market research, design, create, promote, evaluate, present.
Online-Safety					
Taught the first lesson of each half term. To follow. Online-safety progression document requiring update.					