






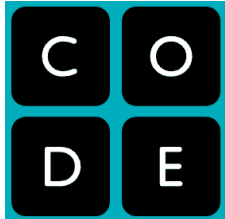




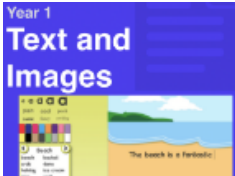
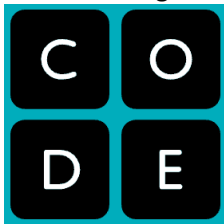
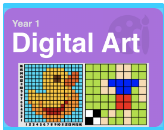






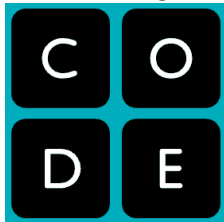








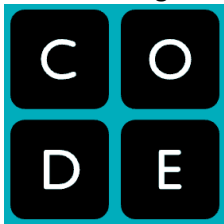








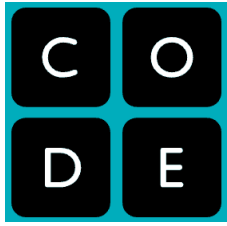



<u>Whole School Curriculum Intent – Our Key Drivers are:</u> Character Culture Creativity Challenge	<u>Computing Curriculum Intent</u> We will challenge all of our pupils to develop their computing skills using a wide variety of hardware and software to achieve a variety of results We enable our pupils to use technology safely both in and out of school. Our children will embrace how both computing and safety can be applied to all aspects of school life. Our children will create a wide variety of digital content for a variety of purposes. Our children will be provided with opportunities to explore technology to solve problems. Our children will be allowed to physically create products which use technology to operate them. We teach our pupils to be responsible when using technology and to have an appreciation of how the digital realm can affect real life.
To enable our pupils to meet and exceed national curriculum expectations To enable our children to follow their own lines of enquiry and apply their knowledge and skills in a range of real life contexts To enable our pupils to be confident, fluent readers who read widely and for a range of purposes To teach our pupils to be confident, articulate speakers who can develop and express their ideas in a thoughtful way To enable our pupils to be creative, critical and divergent thinkers who approach problems with a positive and resilient attitude To teach our pupils to be responsible, global citizens who appreciate what they have, show empathy for others and celebrate diversity To encourage our children to celebrate achievements, understand what they are good at and appreciate that everyone has something special to offer To equip our pupils with the skills to be emotionally intelligent and to have a strong set of core values	<u>Impact – Through delivering this curriculum, our children will:</u> Our pupils will be able to create, program and debug a variety of software and hardware to achieve a wide variety of results. Our pupils will be responsible and respectful when using technology and understand how to conduct themselves on the internet both in and out of school. Our pupils will have an appreciation of the variety of ways technology is used both in school and in the wider world. Our pupils will be given opportunities to create physical appliances that are controlled and manipulated through their use of coding to accomplish a variety of goals
	<u>South Gosforth First School – Core Values</u> Kindness Empathy Respect Responsibility Perseverance

EYFS	Computing Areas of Learning		
Strand	Digital Literacy	Information Technology	Computing Science
Topics	<p>Unit 3 - E-safety</p>  <p>Unit 4 – Digital Literacy and Numeracy</p>  <p>Unit 1 – What is a computer?</p>  <p>Unit 2 – Mouse and Keyboard Skills</p> 	<p>Unit 5 – Photos and videos</p>  <p>Unit 6 – Art and Design</p>  <p>Unit 8 – Music</p> 	<p>Code.org - Course A</p>  <p>Exploratory play – Codi-pillars</p> 
Skills	<p><u>Unit 1 – What is a computer?</u> Understanding the World; Children recognise that a range of technology is used in places such as home and schools (Early Learning) Communication and Language; Listening and Attention, Understanding, Speaking.</p> <p><u>Unit 2 – Mouse and Keyboard Skills</u> Mouse and keyboard skills; move mouse, left/right click, drag and drop. Typing; Find letters on keyboard and begin touch typing with home row keys.</p> <p><u>Unit 3 – E-safety</u> Introducing the concept of 'safe' and asking for help if they move from the activity/screen they were working on.</p> <p><u>Unit 4 – Digital Literacy and Numeracy</u> Typing and keyboard familiarity and investigations. Interacting with age-appropriate software around early writing, reading and maths.</p>	<p><u>Unit 5 – Photos and videos</u> What is a photo? What is a video? Taking photos themselves using a variety of equipment (ipad, camera or discussing use of phones.)</p> <p><u>Unit 6 – Art and Design</u> The activities develop mouse control and interaction with programs to develop creativity and begin making decisions on which digital tools are appropriate for creating different content.</p> <p><u>Unit 8 - Music</u> To understand the different sounds instruments, make, the important of patterns in music creation and important words such as rhythm/beats, tempo and melody. Pupils should be encouraged to experiment with music creation. Create a rhythm using a pattern of beats. Create digital sounds using patterns and shapes. Create a simple melody using patterns and adjust tempo.</p>	<p><u>Code.org - Course A</u> Mouse Control - simple algorithms and loops using a range of colourful characters.</p> <p>Begin establishing their online neighbourhood that needs to be cared for and that they must help to look after.</p> <p><u>Physical coding</u> using the coda-pillars create and execute simple programmes – including making predictions about how changing the code with change the outcome</p>

Year 1	Computing Areas of Learning		
Strand	Digital Literacy	Information Technology	Computing Science
Topics	 <p>E-safety – 1st lesson of each half term</p>  <p>Mouse and keyboard skills</p>	 <p>Comic Creation</p>  <p>Text and Images</p>	 <p>Course B – 13 lessons</p>
Skills	<p><u>E-safety KS1</u></p> <ul style="list-style-type: none"> - Keep personal information private. - Find out why websites want personal information. - Identify when and where to go for help. <p><u>Mouse and Keyboard Skills</u></p> <ul style="list-style-type: none"> - Moving the cursor left and right. - Clicking and dragging to move items. - Finding letters on the keyboard in preparation for touch typing. 	<p><u>Text and Images</u></p> <ul style="list-style-type: none"> - Adding, moving and resizing objects, adding text and adjusting size and placement. - Adding, resizing and placing images on a page then adding and positioning text to label and describe the images. - Using word banks to write sentences about the images. <p><u>Comic Creation</u></p> <ul style="list-style-type: none"> - Adding a suitable background to a panel. - Using different controls to move around a comic and make space. Eg. zoom, minimise menus. - Add, re-size, move and rotate objects, including characters. - Add and re-size text boxes and speech bubbles. 	<p><u>Code.org – Course B</u></p> <ul style="list-style-type: none"> - Understanding the idea of an algorithm. - Sequencing using blocks to solve mazes. - Use of loops to simplify amount of commands needed to execute a function.
Cross curricular computing		<p><u>Art</u></p> <ul style="list-style-type: none"> - Changing the colours of individual pixels to accurately re-create a basic artwork. - Make changes where required. - Changing the colours of individual pixels to accurately re-create detailed artwork. 	
		<p><u>Design</u></p> <ul style="list-style-type: none"> - Changing the colour and pattern of elements. - Positioning and rotating images on a design. - Positioning objects in relation to each other. 	
		<p><u>Music creation</u></p> <ul style="list-style-type: none"> - Create a rhythm using a pattern of beats. - Create digital sounds using patterns and shapes. - Create a simple melody using patterns and adjust tempo. 	

Year 2	Computing Areas of Learning		
Strand	Digital Literacy	Information Technology	Computing Science
Topic	 <p>E-safety – 1st lesson of each half term</p>  <p>Recognising uses of computing</p>  <p>Typing</p>	 <p>E-book creation</p>	<p>Code.org</p>  <p>Course C – 16 lessons</p>  <p>Introduction to Animation</p>
Skills	<p><u>E-safety KS1</u></p> <ul style="list-style-type: none"> - Keep personal information private. - Find out why websites want personal information. - Identify when and where to go for help. <p><u>Recognise uses of IT</u></p> <ul style="list-style-type: none"> - Understand what makes a computer a computer. - Understand computers store and follow instructions. - Spot digital technology in school. - Understand how different technology helps us. 	<p><u>E-book Creation</u></p> <ul style="list-style-type: none"> - Add a book cover with title, author, colour and image. - Add multiple pages based on a theme. - Add text on different pages. - Add images on different pages to match the theme/text. - Add voice recordings to match the text and theme. 	<p><u>Code.org</u></p> <ul style="list-style-type: none"> - Children will create programs using sequencing, loops and events. - Establish strategies that build positive communities online and offline - End point creating an interactive game they can share. <p><u>Introduction to Animation using PowerPoint</u></p> <ul style="list-style-type: none"> - Add a background and objects to a frame. - Copy/clone a frame and move objects to create an animation.
Cross curricular computing		<p><u>Art - Digital Art</u></p> <ul style="list-style-type: none"> - Use lines and fill tools to make interesting patterns. - Add a variety of shapes (outlines and fill) and label them with text. - Re-create graphics using pixels with different colours. 	
		<p><u>Maths - Introduce data handling</u></p> <ul style="list-style-type: none"> - Understand what data is and collect it as a tally.- Label a pictogram and add data to each column. - Edit a table with correct titles and numbers. - Create a bar chart/pie chart/line chart suitable for the data. 	

Year 3	Computing Areas of Learning		
Strand	Digital Literacy	Information Technology	Computing Science
Topic		 	<p>Code.org</p>  <p>Course D – 17 lessons</p> 
Skills	<p>E-safety KS2</p> <ul style="list-style-type: none"> - Consolidation of KS1 skills. - Captain Kara and the Smart Crew – video series - Build up a clear understanding of the SMART approach to IT 	<p><u>Document editing and creation</u></p> <ul style="list-style-type: none"> - Copy and Paste text and images. - Find and replace words. - Format text for a purpose. <p><u>Digital storyboards</u></p> <ul style="list-style-type: none"> - Manipulate text and images to create a story. - Use the screen capture function to record their work - Retell a known story 	<p><u>Code.org</u></p> <ul style="list-style-type: none"> - Children will begin by recapping the concepts of sequences and loops - Continue to build up their understanding of algorithms, nested loops and while loops - Begin to use conditionals
Cross curricular computing		<p><u>Internet research</u></p> <ul style="list-style-type: none"> - Specific tasks using the internet to research topics. - Discuss how safesearch presents its results. - Check the reliability of different sources of information, using the 'rule of three'. 	
		<p><u>Digital Art – Art</u></p> <ul style="list-style-type: none"> - Use various lines and fill tools plus copy/paste and rotation to create pattern effects. - Use shapes, fill, copy/paste, zoom and flip to create reflective symmetry effects. - Use stamps, copy/paste, layers and multiple frames to create animated GIF computer graphics. 	
		<p><u>Music Creation</u></p> <ul style="list-style-type: none"> - Create ascending and descending scales. - Add chords evenly across the scales. - Add arpeggios and melodies. - Add a steady and even rhythm. - Use sampled sounds to create an effective mix. - Build beats, melody (tones) and effects. 	

Year 4	Computing Areas of Learning		
Strand	Digital Literacy	Information Technology	Computer Science
Topic			<p>Code.org</p>  <p>Course E – 18 lessons</p> 
Skills	<p><u>E-safety KS2</u></p> <ul style="list-style-type: none"> - Children should be well versed in eSafety and proper digital conduct - Use BBC resources to further their understanding of eSafety. 	<p><u>3D design</u></p> <ul style="list-style-type: none"> - Using 3D village - re-create different types of buildings using 3D shapes. - Create roads/paths by adjusting the height of 3D shapes then add windows and door shapes. - Use Lego modelling to add, move, rotate, change colour and duplicate a brick. - Use sloping bricks and special bricks for a purpose. - Change the transparency of bricks. 	<p><u>Code.org</u></p> <ul style="list-style-type: none"> - Children will create interactive projects that will dovetail with the information they have learned about online safety - They will further their knowledge of conditionals and start to learn about functions and nested loops <p><u>Physical coding</u></p> <ul style="list-style-type: none"> - Using a micro bit to create an interactive model. <p><u>Animation</u></p> <ul style="list-style-type: none"> - Create a stop-motion video by duplicating slides (frames). - Create animation using transition effects (motion paths, pulse etc). - Animate individual elements of objects. - Create animated GIF files by animating pixels.
Cross curricular computing		<p><u>Data Handling - Maths</u></p> <ul style="list-style-type: none"> - Find and present data as a table and suitable chart. - Give chart a suitable title and label axis correctly. - Select and use non-adjacent cells and resize multiple cell widths. 	
		<p><u>Music Editing and Manipulation</u></p> <ul style="list-style-type: none"> - Use Audacity to blend several samples to create a mix that the children want to tell a story. - Manipulate waveforms to create new and unusual sounds to create an otherworldly atmosphere. - Create a specific soundscape to set to a film 	

