

## South Avenue Primary School

### Computing End Points



<b>Computing Curriculum Intent</b>	<p>At South Avenue, our curriculum is designed with the intent that each child becomes an ambitious, encouraging and resilient young person with a passion for learning and achieving. Through the teaching and learning of Computing, we encourage children to be inquisitive throughout their time at school and beyond. At our school we appreciate that technology is everywhere and will play a pivotal role in our children's lives. We want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our children to become innovators, not merely consumers, and we aim to include a broad curriculum (which includes: computer science; information technology; and digital literacy).</p> <p>We intend to build a computing curriculum that prepares pupils to live safely in an increasingly digital British society where pupils can evaluate and apply their computing knowledge, including new or unfamiliar technologies, analytically to solve problems.</p> <p>Finally, we aim to ensure our computing curriculum is cross-curricular, as much as possible, to allow for flexibility in the coverage but also so that children can see that computing can be used in other subjects (and that the skills they are learning are highly transferrable). This will result in our children understanding and appreciating that computing plays a large role in the 'real' (working) world and that they are well prepared for this when they are older.</p>						
<b>Word processing/typing</b>	<b>EYFS</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>
	<ul style="list-style-type: none"> <li>*I can play on a touch screen game and use computers/keyboards/mouse in role play</li> <li>• I can type letters with increasing confidence using a keyboard and tablet.</li> <li>• I can dictate short, clear sentences into a digital device.</li> </ul>	<ul style="list-style-type: none"> <li>• I can confidently type words quickly and correctly on a digital device.</li> <li>• I can use the space bar to make space and delete to delete letters/ words</li> <li>• I can make a new line using enter/return</li> <li>• I can dictate into a digital device more accurately and</li> </ul>	<ul style="list-style-type: none"> <li>• I can use the space bar only once between words and use touch to navigate to words letter to letter</li> <li>• I can copy and paste images and text</li> <li>• Use caps locks for capital letters.</li> <li>• I can add images alongside text in a word processed document.</li> </ul>	<ul style="list-style-type: none"> <li>• I can use index fingers on keyboard home keys (f/j), use left fingers for a/s/d/f/g, and use right fingers for h/j/k/l</li> <li>• I can edit the style and effect of my text and images to make my document more engaging and eye-catching. For example,</li> </ul>	<ul style="list-style-type: none"> <li>• I can combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets.</li> <li>• Confidently and regularly use text shortcuts such as cut, copy and paste and delete to</li> </ul>	<ul style="list-style-type: none"> <li>• I can start to apply other useful effects to my documents such as hyperlinks.</li> <li>• I can import sounds to accompany and enhance the text in my document.</li> <li>• I can organise and reorganise text on screen to suit a purpose</li> </ul>	<ul style="list-style-type: none"> <li>• I can confidently choose the best application to demonstrate my learning.</li> <li>• I can format text to suit a purpose.</li> <li>• I can publish my documents online regularly and discuss the audience and purpose of my content.</li> </ul>

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		with punctuation.	<ul style="list-style-type: none"> <li>I can dictate longer passages into a digital device with accurate punctuation.</li> </ul>	borders and shadows. <ul style="list-style-type: none"> <li>I can use cut, copy and paste to quickly duplicate and organise text.</li> </ul>	organise text <ul style="list-style-type: none"> <li>Use font sizes appropriately for audience and purpose.\Use spell check and thesaurus including through Siri and other AI technology</li> </ul>		
<b>Data Handling</b>	<ul style="list-style-type: none"> <li>I can identify a chart.</li> <li>I can sort physical objects, take a picture and discuss what I have done.</li> <li>I can present simple data on a digital device</li> </ul>	<ul style="list-style-type: none"> <li>I can sort images or text into two or more categories on a digital device.</li> <li>I can collect data on a topic.</li> <li>I can create a tally chart and pictogram.</li> <li>I can record myself explaining what I have done and what it shows me.</li> </ul>	<ul style="list-style-type: none"> <li>I can sort digital objects into a range of charts such as Venn diagrams, carroll diagrams and bar charts using different apps and software.</li> <li>I can orally record myself explaining what the data shows me.</li> <li>I can create a branching database using questions</li> </ul>	<ul style="list-style-type: none"> <li>I can create my own sorting diagram and complete a data handling activity with it using images and text.</li> <li>I can start to input simple data into a spreadsheet.</li> <li>I can create a feelings chart exploring a story or character's feelings</li> </ul>	<ul style="list-style-type: none"> <li>I can create my own online multiple choice questionnaire.</li> <li>I can input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts.</li> <li>I understand how data is collected.</li> </ul>	<ul style="list-style-type: none"> <li>I can create and publish my own online questionnaire and analyse the results.</li> <li>I can use simple formulae to solve calculations including =sum and other statistical functions</li> <li>I can edit and format difference cells in a spreadsheet.</li> </ul>	<ul style="list-style-type: none"> <li>I can write spreadsheet formula to solve more challenging maths problems.</li> <li>I can create and publish my own online quiz with a range of media (images and video)</li> </ul>

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#### Presentation, web design and ebook

<ul style="list-style-type: none"><li>• I can record my voice over a picture.</li><li>• I can create a simple digital collage.</li><li>• I can move and resize images with my fingers or mouse.</li></ul>	<ul style="list-style-type: none"><li>• I can add voice labels to an image.</li><li>• I can add a voice recording to a storyboard.</li><li>• I can add speech bubbles to an image to show what a character thinks.</li><li>• I can import images to a project from the web and camera roll</li></ul>	<ul style="list-style-type: none"><li>• I can add voice labels to an image.</li><li>• I can add a voice recording to a storyboard.</li><li>• I can add speech bubbles to an image to show what a character thinks.</li><li>• I can import images to a project from the web and camera roll</li></ul>	<ul style="list-style-type: none"><li>• I can create an interactive comic with sounds, formatted text and video.</li><li>• I can annotate an image with videos</li><li>• I can create a simple web page.</li><li>• I can create a simple digital timeline/mindmap</li></ul>	<ul style="list-style-type: none"><li>• I can create an interactive quiz eBook introducing hyperlinks.</li><li>• I can create an eBook with text, images and sound.</li><li>• I can create a presentation demonstrating my understanding with a range of media.</li><li>• I can create a digital timeline/mindmap and include different media - sound and video.</li></ul>	<ul style="list-style-type: none"><li>• I can collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365</li><li>• I can create and export an interactive presentation including a variety of media, animations, transitions and other effects.</li><li>• I can create an interactive guide to a image by embedding digital content and publishing it online.</li><li>• I can create a webpage and embed video.</li></ul>	<ul style="list-style-type: none"><li>• I can create a web site which includes a variety of media.</li><li>• I can design an app prototype that links multimedia pages together with hyperlinks.</li><li>• I can choose applications to communicate to a specific audience.</li><li>• I can evaluate my own content and consider ways to improvements.</li></ul>
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<b>Animation</b>	<ul style="list-style-type: none"> <li>• I can animate a simple image to speak in role</li> <li>• I can create a simple animation to tell a story including more than one character.</li> </ul>	<ul style="list-style-type: none"> <li>• I can add filters and stickers to enhance an animation of a character.</li> <li>• I can create an animation to tell a story with more than one scene.</li> <li>• I can add my own pictures to my story animation.</li> </ul>	<ul style="list-style-type: none"> <li>• I can create multiple animations of an image and edit these together.</li> <li>• I can create a simple stop motion animation.</li> <li>• I can explain how an animation/flip book works</li> </ul>	<ul style="list-style-type: none"> <li>• I can create animations of faces to speak in role with more life-like realistic outcomes.</li> <li>• I can improve stop motion animation clips with techniques like onion skinning.</li> <li>• I can use animation tools in presenting software to create simple animations.</li> </ul>	<ul style="list-style-type: none"> <li>• I can take multiple animations of a character I have created and edit them together for a longer video.</li> <li>• I can use software to create a 3D animated story.</li> <li>• I can use line draw tool to create animations.</li> </ul>	<ul style="list-style-type: none"> <li>• I can record animations of different characters and edit them together to create an interview.</li> <li>• I can add green screen effects to a stop motion animation.</li> <li>• I can create flip book animation using digital drawings and export as a Gif or video</li> </ul>	<ul style="list-style-type: none"> <li>• I can mix animations and videos recordings of myself to create video interviews.</li> <li>• I can plan, script and create a 3D animation to explain a concept or tell a story.</li> <li>• I can choose and create different types of animations to best explain my learning.</li> </ul>
<b>Video Creation</b>	<ul style="list-style-type: none"> <li>• I know the difference between a photography and video.</li> <li>• I can record a short film using the camera</li> <li>• I can record and play a film</li> <li>• I can watch films back</li> </ul>	<ul style="list-style-type: none"> <li>• I can record a film using the camera app.</li> <li>• I can select images and record a voiceover.</li> <li>• I can highlight and zoom into images as I record.</li> </ul>	<ul style="list-style-type: none"> <li>• I can write and record a script using a teleprompter tool.</li> <li>• I can use tools to add effects to a video</li> <li>• I can begin to use green screen techniques with support</li> </ul>	<ul style="list-style-type: none"> <li>• I can sequence clips of mixed media in a timeline and record a voiceover</li> <li>• I can trim and cut film clips and add titles and transitions</li> <li>• I can independently create a green screen clip.</li> </ul>	<ul style="list-style-type: none"> <li>• I can add music and sound effects to my films</li> <li>• I can add animated titles and transitions</li> <li>• I can add simple subtitles to a video clip.</li> <li>• I can use confidently use green screen</li> </ul>	<ul style="list-style-type: none"> <li>• I can use cutaway and split screen tools in iMovie.</li> <li>• I can evaluate and improve the best video tools to best explain my understanding.</li> <li>• I can further improve green screen clips</li> </ul>	<ul style="list-style-type: none"> <li>• I can use the green screen masking tool with more than one character.</li> <li>• I can use picture in picture tools in iMovie.</li> <li>• I can add animated subtitles to my film to further</li> </ul>

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				<ul style="list-style-type: none"> <li>• I can create my own movie trailer.</li> </ul>	adding animated backgrounds.	using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool.	enhance my creation. <ul style="list-style-type: none"> <li>• I can create videos using a range of media - green screen, animations, film and image.</li> </ul>
<b>Photography and digital art</b>	<ul style="list-style-type: none"> <li>• I can take a photograph</li> <li>• I can take a photograph and use it in an app</li> <li>• I can use a painting app and explore the paint and brush tools</li> </ul>	<ul style="list-style-type: none"> <li>• I can edit a photo with simple tools</li> <li>• I can use a paint/drawing app to create a digital image</li> <li>• I can begin to cut out an image to layer on another image.</li> </ul>	<ul style="list-style-type: none"> <li>• I can edit a photo (crop, filters, mark up etc)</li> <li>• I can select and use tools to create digital imagery - controlling the pen and using the fill tool</li> <li>• I can cut images with accuracy to layer on other images</li> </ul>	<ul style="list-style-type: none"> <li>• I can confidently take and manipulate photos</li> <li>• I can create a digital image using a range of tools, pens, brushes and effects</li> <li>• I can create transparent images with Instant Alpha</li> </ul>	<ul style="list-style-type: none"> <li>• I can enhance digital images and photographs using crop, brightness, contrast &amp; resize</li> <li>• I can manipulate shapes to create digital art.</li> <li>• I can draw a series of images and export as an animated GIF</li> </ul>	<ul style="list-style-type: none"> <li>• I can make a digital photo using camera settings</li> <li>• I can enhance digital photos and images using crop, brightness and resize tools</li> <li>• I can link and explain how to photoshop images and how this is used in the media</li> </ul>	<ul style="list-style-type: none"> <li>• I can edit a picture to remove items, add backgrounds, merge 2 photos</li> <li>• I can evaluate and discuss images explaining effects and filters that have been used to enhance the media.</li> <li>• Use a 3D drawing app to create a realistic representation of world objects</li> </ul>

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<b>AR And VR</b>	<ul style="list-style-type: none"> <li>• I can scan a QR code.</li> <li>• I can explore a 360 image.</li> <li>• I can talk about AR objects in my class</li> </ul>	<ul style="list-style-type: none"> <li>• I can explore an interactive 360 image.</li> <li>• I can scan a trigger image to begin a AR experience.</li> <li>• I can pretend to interact with AR objects.</li> </ul>	<ul style="list-style-type: none"> <li>• I can draw my own 360 image and explore it in VR.</li> <li>• I can bring objects into my surroundings using Augmented Reality.</li> <li>• I can create my own QR code</li> </ul>	<ul style="list-style-type: none"> <li>• I can create my own digital 360 image and explore it in VR</li> <li>• I can create my own images and bring it into my surroundings through AR.</li> </ul>	<ul style="list-style-type: none"> <li>• I can create my own 360 video.</li> <li>• I can use the camera to create a 360 image.</li> <li>• I can add multiple objects into my surroundings through AR to explain a concept.</li> </ul>	<ul style="list-style-type: none"> <li>• I can create an interactive VR experience.</li> <li>• I can create an animated object and bring it into my surroundings through AR</li> <li>• I can create an AR experience using objects I have created to explain a concept.</li> </ul>	<ul style="list-style-type: none"> <li>• I can edit a picture to remove items, add backgrounds, merge 2 photos</li> <li>• I can evaluate and discuss images explaining effects and filters that have been used to enhance the media.</li> <li>• Use a 3D drawing app to create a realistic representation of world objects</li> </ul>
<b>Sound</b>	<ul style="list-style-type: none"> <li>• I can record sounds with different resources</li> <li>• I can find ways to change your voice (tube, tin can, shouting to create an echo)</li> <li>• I can record sounds/voices in storytelling and explanation</li> </ul>	<ul style="list-style-type: none"> <li>• I can create a sequence of sounds (instruments, apps/software)</li> <li>• I can explore short and long sounds.</li> <li>• I can record my voice and</li> </ul>	<ul style="list-style-type: none"> <li>• Create a musical composition using software</li> <li>• I can record my own sound effects.</li> <li>• I can record my voice over a compositions to perform a song.</li> </ul>	<ul style="list-style-type: none"> <li>• I can create and edit purposeful compositions using music software to create mood or a certain style</li> <li>• I can experiment with live loops to create a song.</li> </ul>	<ul style="list-style-type: none"> <li>• Edit sound effects for a purpose.</li> <li>• Create a simple four chord song following the correct rhythm.</li> <li>• I can record a radio broadcast or audiobook.</li> </ul>	<ul style="list-style-type: none"> <li>• Add voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast.</li> <li>• Create a remix of a popular song.</li> </ul>	<ul style="list-style-type: none"> <li>• Add voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast)</li> <li>• Compose a soundtrack that</li> </ul>

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		add different effects.					can be added to a film project
<b>Computational thinking</b>	<ul style="list-style-type: none"> <li>• I can follow simple oral algorithms</li> <li>• I can spot simple patterns</li> <li>• I can sequence simple familiar tasks</li> </ul>	<ul style="list-style-type: none"> <li>• I understand what algorithms are</li> <li>• I can write simple algorithms</li> <li>• I understand the sequence of algorithms is important</li> <li>• I can debug simple algorithms</li> <li>• I understand that algorithms are implemented as programs on digital devices</li> </ul>	<ul style="list-style-type: none"> <li>• I can write algorithms for everyday tasks</li> <li>• I can use logical reasoning to predict the outcome of algorithms</li> <li>• I understand decomposition is breaking objects/processes down</li> <li>• I can implement simple algorithms on digital devices (Bee Bots, Apps: Daisy the Dino)</li> </ul>	<ul style="list-style-type: none"> <li>• I can create algorithms for use when programming</li> <li>• I can decompose tasks (such as animations) into separate steps to create an algorithm</li> <li>• I understand abstraction is focusing on important information</li> <li>• I can identify patterns in an algorithm I can use repetition in algorithms</li> </ul>	<ul style="list-style-type: none"> <li>• I can use abstraction to focus on what's important in my design</li> <li>• I can write increasingly more precise algorithms for use when programming.</li> <li>• I can use simple selection in algorithms</li> <li>• I can use logical reasoning to detect and correct errors in programs</li> </ul>	<ul style="list-style-type: none"> <li>• I can solve problems by decomposing them into smaller parts</li> <li>• I can use selection in algorithms</li> <li>• I can recognise the need for conditions in repetition within algorithms</li> <li>• I can use logical reasoning to explain how a variety of algorithms work</li> <li>• I can use logical reasoning</li> </ul>	<ul style="list-style-type: none"> <li>• I can recognise, and make use, of patterns across programming projects</li> <li>• I can write precise algorithms for use when programming</li> <li>• I can identify variables needed and their use in selection and repetition</li> <li>• I can decompose code into sections for</li> </ul>

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			<ul style="list-style-type: none"> <li>• I can debug algorithms</li> </ul>			<p>to detect and correct errors in algorithms</p> <ul style="list-style-type: none"> <li>• I can evaluate my work and identify errors</li> </ul>	<p>effective debugging</p> <ul style="list-style-type: none"> <li>• I can critically evaluate my work and suggest improvements</li> </ul>
<b>Coding and programming</b>	<ul style="list-style-type: none"> <li>• I can use a mouse, touch screen or appropriate access device to target and select options on screen</li> <li>• I can input a simple sequence of commands to control a digital device with support (Bee Bot)</li> </ul>	<ul style="list-style-type: none"> <li>• I can create a simple program e.g. sequence of instructions for a Bee Bot</li> <li>• I can use sequence in programs I can locate and fix bugs in my program</li> </ul>	<ul style="list-style-type: none"> <li>• I understand programs execute by following precise and unambiguous instructions</li> <li>• I can create programs on a variety of digital devices</li> <li>• I can debug programs of increasing complexity</li> <li>• I can use logical reasoning to predict the outcome of simple programs</li> </ul>	<ul style="list-style-type: none"> <li>• I can design and create programs</li> <li>• I can write programs that accomplish specific goals</li> <li>• I can use repetition in programs I can work with various forms of input</li> </ul>	<ul style="list-style-type: none"> <li>• I can use simple selection in programs</li> <li>• I can work with various forms of output</li> <li>• I can use logical reasoning to systematically detect and correct errors in programs</li> <li>• I can work with various forms of output</li> </ul>	<ul style="list-style-type: none"> <li>• I can create programs by decomposing them into smaller parts</li> <li>• I can use selection in programs</li> <li>• I can use conditions in repetition commands</li> <li>• I can work with variables</li> <li>• I can create programs that control or simulate physical systems</li> </ul>	<ul style="list-style-type: none"> <li>• I can use a range of sequence, selection and repetition commands combined with variables as required to implement my design</li> <li>• I can create procedures to hide complexity in programs</li> <li>• I can identify and write generic code for use across multiple projects</li> </ul>



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						<ul style="list-style-type: none"> <li>• I can evaluate my work and identify errors</li> </ul>	<ul style="list-style-type: none"> <li>• I can critically evaluate my work and suggest improvements</li> <li>• I can identify and use basic HTML tags (See Computer Networks objectives)</li> </ul>
<b>Computer networks</b>				<ul style="list-style-type: none"> <li>• I understand that computers in a school are connected together in a network</li> <li>• I understand why computers are networked</li> <li>• I understand the difference between the Internet and the World Wide Web (WWW)</li> </ul>	<ul style="list-style-type: none"> <li>• I understand that servers on the Internet are located across the planet</li> <li>• I understand how email is sent across the Internet</li> <li>• I understand how the Internet enables us to collaborate</li> </ul>	<ul style="list-style-type: none"> <li>• I understand how we view web pages on the Internet</li> <li>• I use search technologies effectively</li> <li>• I understand that web spiders index the web for search engines</li> <li>• I appreciate how pages are ranked in a search engine</li> </ul>	<ul style="list-style-type: none"> <li>• I understand what HTML is and recognize HTML tags</li> <li>• I know a range of HTML tags and can remix a web page</li> <li>• I can create a webpage using HTML</li> </ul>