



Brindle St James' CE Primary School

Curriculum Intent, Impact and Progression of Skills in Computing

Our Curriculum Intent

At our school we want pupils to be masters of technology. Technology is everywhere and will play a pivotal part in our pupil's lives now and in the future. Therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to be creators not consumers and our broad curriculum encompassing computer science, information technology and digital literacy reflects this. We want our pupils to understand that there is always a choice with using technology and as a school we utilise technology to model positive use. We recognise that the best prevention for a lot of issues we currently see with technology is through education. We recognise that technology can allow pupils to share their learning in creative ways. We also understand the accessibility opportunities technology can provide for our pupils. Our knowledge rich curriculum has to be balanced with the opportunity for pupils to apply their knowledge creatively which will in turn help our pupils become skilful computer scientists. We encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible. Our children in Early Years are taught to use ICT as a medium for learning. They are taught to use tools and equipment within the classroom to document their own learning, they use it to support learning and we encourage our children to be creative with technology to enhance their learning. The children of Brindle St James' are to be producers with technology utilising ICT equipment to its full potential. We want our pupils to be fluent with a range of tools to best express their understanding. We intend by Class 3 at Brindle St James' that our children have the independence and confidence to choose the best tool to fulfil the task and challenge set by teachers.

Computing				
<u>Implementation</u>				
	EYFS	Class 1	Class 2	Class 3
ICT	To play on a touch screen game and use computers/keyboards/mouse in role play. To type letters with increasing confidence using a keyboard and tablet. To dictate short, clear sentences into a digital device.	To confidently type words quickly and correctly on a digital device. To use the space bar to make space and delete to delete letters/words. To make a new line using enter/return. To dictate into a digital device more accurately and with punctuation.	To 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. To edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. To use cut, copy and paste to quickly duplicate and organise text.	To start to apply other useful effects to my documents such as hyperlinks. To import sounds to accompany and enhance the text in my document. To organise and reorganise text on screen to suit a purpose. To confidently choose the best application to demonstrate my learning. To format text to suit a purpose.



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		To use the space bar only once between words and use touch to navigate to words letter to edit. To copy and paste images and text. To use caps locks for capital letters. To add images alongside text in a word processed document. To dictate longer passages into a digital device with accurate punctuation.	To combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, and leaflets. To confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text. To use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through Siri and other technology.	To publish my documents online regularly and discuss the audience and purpose of my content.
Apps	Seesaw, Word, Pages, Google Docs, Pic Collage,	Seesaw, Word, Pages, Google Docs, Pic Collage, Book Creator	Seesaw, Word, Pages, Google Docs, Pic Collage, Book Creator, Popplet	Seesaw, Word, Pages, Google Docs, Pic Collage, Book Creator, Popplet
Data Handling	To identify a chart. To sort physical objects, take a picture and discuss what I have done. To present simple data on a digital device.	To sort images or text into two or more categories on a digital device. To collect data on a topic. To create a tally chart and pictogram. To record myself explaining what I have done and what it shows me. To sort digital objects into a range of charts such as Venn diagrams, carroll diagrams and	To create my own sorting diagram and complete a data handling activity with it using images and text. To start to input simple data into a spreadsheet. To create a feelings chart exploring a story or character's feelings. To create my own online multiple choice questionnaire. To input data into a spreadsheet and export the data in a variety of ways: charts,	To create and publish my own online questionnaire and analyse the results. To use simple formulae to solve calculations including =sum and other statistical functions. To edit and format difference cells in a spreadsheet. To write spreadsheet formula to solve more challenging maths problems. To create and publish my own online quiz with a range of media (images and video).



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		bar charts using different apps and software. To orally record myself explaining what the data shows me. To create a branching database using questions	bar charts, pie charts. To understand how data is collected.	
Apps	Seesaw	Seesaw, Pic Collage, Pickers, Google Sheets, Google Forms, Excel, Numbers	Seesaw, Pic Collage, Pickers, Google Sheets, Google Forms, Excel, Numbers, Kahoot	Seesaw, Pic Collage, Pickers, Google Sheets, Google Forms, Excel, Numbers, Kahoot, Mentimeter
Presentations, web design and eBook Creation	To record my voice over a picture. To create a simple digital collage. To move and resize images with my fingers or mouse.	To add labels to an image. To order images to create a simple storyboard. To create a simple spider diagram. To sequence a series of pictures to explain my understanding of a topic. To add voice labels to an image. To add a voice recording to a storyboard. To add speech bubbles to an image to show what a character thinks. To import images to a project from the web and camera roll.	To create an interactive comic with sounds, formatted text and video. To annotate an image with videos. To create a simple web page. To create a simple digital timeline/mindmap. To create an interactive quiz eBook introducing hyperlinks. To create an eBook with text, images and sound. To create a presentation demonstrating my understanding with a range of media. To create a digital timeline/mindmap and include different media - sound and video.	To collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365. To create and export an interactive presentation including a variety of media, animations, transitions and other effects. To create an interactive guide to a image by embedding digital content and publishing it online. To create a webpage and embed video. To create a web site which includes a variety of media. To design an app prototype that links multimedia pages together with hyperlinks. To choose applications to communicate to a specific audience. To evaluate my own content and consider ways to improvements.
Apps	Seesaw	Seesaw, Pic Collage, Balloon Stickies, Thinglink, Book Creator	Balloon Stickies + Google Sites, Thinglink, Book Creator, Keynote, Adobe Spark Page, Powerpoint	Balloon Stickies + Google Sites, Thinglink, Book Creator, Keynote,



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				Adobe Spark Page, Powerpoint, Wakelet
Animation	To animate a simple image to speak in role. To create a simple animation to tell a story including more than one character.	To add filters and stickers to enhance an animation of a character. To create an animation to tell a story with more than one scene. To add my own pictures to my story animation. To create multiple animations of an image and edit these together. To create a simple stop motion animation. To explain how an animation/flip book works	To create animations of faces to speak in role with more life-like realistic outcomes. To improve stop motion animation clips with techniques like onion skinning. To use animation tools in presenting software to create simple animations. To take multiple animations of a character I have created and edit them together for a longer video. To use software to create a 3D animated story. To use line draw tool to create animations.	To record animations of different characters and edit them together to create an interview. To add green screen effects to a stop motion animation. To create flip book animation using digital drawings and export as a Gif or video To mix animations and videos recordings of myself to create video interviews. To plan, script and create a 3D animation to explain a concept or tell a story. To choose and create different types of animations to best explain my learning.
Apps	Puppetpals, ChatterPix Kids	Puppetpals, ChatterPix Kids, I can Animate, Seesaw	Puppetpals, ChatterPix Kids, Animate Anything, I Can Animate, iFunFace, Seesaw, Plotagon, Puppetmaster, Toontastic,	Puppetpals, ChatterPix Kids, Animate Anything, I Can Animate, iFunFace, Seesaw, Plotagon, Puppetmaster, Toontastic,
Video Creation	To know the difference between a photography and video. To record a short film using the camera. To record and play a film. To watch films back.	To record a film using the camera app. To select images and record a voiceover. To highlight and zoom into images as I record. To write and record a script using a teleprompter tool. To use tools to add effects to a video. To begin to use green screen techniques with support.	To sequence clips of mixed media in a timeline and record a voiceover. To trim and cut film clips and add titles and transitions. To independently create a green screen clip. To create my own movie trailer. To add music and sound effects to my films. To add animated titles and transitions. To add simple subtitles to a video clip. To confidently use green screen adding animated backgrounds.	To use cutaway and split screen tools in iMovie. To evaluate and improve the best video tools to best explain my understanding. To further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool. To use the green screen masking tool with more than one character. To use picture in picture tools in iMovie. To add animated subtitles to my film to further enhance my creation. To



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				create videos using a range of media - green screen, animations, film and image.
Apps		Doink Greenscreen, iMovie, Shadow Puppets Edu, Adobe Spark Video,	Doink Greenscreen, imovie, Shadow Puppets Edu, Adobe Spark Video, Videorama, Apple Clips, Explain Everything.	Doink Greenscreen, imovie, Shadow Puppets Edu, Adobe Spark Video, Videorama, Apple Clips, Explain Everything.
Photography and Digital Art	To take a photograph. To take a photograph and use it in an app. To use a painting app and explore the paint and brush tools.	To edit a photo with simple tools. To use a paint/drawing app to create a digital image. To begin to cut out an image to layer on another image. To edit a photo (crop, filters, mark up etc). To select and use tools to create digital imagery - controlling the pen and using the fill tool. To cut images with accuracy to layer on other images.	To confidently take and manipulate photos. To create a digital image using a range of tools, pens, brushes and effects. To create transparent images with Instant Alpha. To enhance digital images and photographs using crop, brightness, contrast & resize. To manipulate shapes to create digital art. To draw a series of images and export as an animated GIF.	To make a digital photo using camera settings. To enhance digital photos and images using crop, brightness and resize tools. To link and explain how to photoshop images and how this is used in the media. To edit a picture to remove items, add backgrounds, merge 2 photos. To evaluate and discuss images explaining effects and filters that have been used to enhance the media. To use a 3D drawing app to create a realistic representation of world objects.
Apps	Camera Mark up Photo booth Seesaw Draw & Tell	Camera Mark up Photobooth Seesaw Keynote Pic Collage Notes	Camera and Mark up, Notes Seesaw Keynote Pic Collage Sketches Pro Paper	Camera and Mark up, Notes Seesaw Keynote Pic Collage Sketches Pro Paper
Augmented Reality and Virtual Reality	To scan a QR code. To explore a 360 image. To talk about AR objects in my class.	To explore an interactive 360 image. To scan a trigger image to begin a AR experience. To pretend to interact with AR objects. To draw my own 360 image and explore it in VR. To bring objects into my surroundings	To create my own digital 360 image and explore it in VR. To create my own images and bring it into my surroundings through AR. To create my own 360 video. To use the camera to create a 360 image. To add multiple objects into my surroundings through AR to explain a concept.	To create an interactive VR experience. To create an animated object and bring it into my surroundings through AR. To create an AR experience using objects I have created to explain a concept. To create and upload my own VR Google Expedition. To create an interactive



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		using Augmented Reality. To create my own QR code.		poster using AR. To explain how VR and AR works.
Apps	AR Makr, Google Expeditions, Figment AR LEO AR Camera	AR Makr, Thinglink, Keynote, Google Expeditions, Figment AR	AR Makr, Thinglink, Keynote, Google Expeditions, Figment AR, Keynote Google Tour Creator, Eyejack	Merge Cube, Adobe Aero, AR Makr, Thinglink, Keynote, Google Expeditions, Figment AR, Keynote Google Tour Creator, Eyejack
Sound	To record sounds with different resources. To find ways to change your voice (tube, tin can, shouting to create an echo). To record sounds/voices in storytelling and explanation.	To create a sequence of sounds (instruments, apps/software). To explore short and long sounds. To record my voice and add different effects.	To create and edit purposeful compositions using music software to create mood or a certain style. To experiment with live loops to create a song. To edit sound effects for a purpose. To create a simple four chord song following the correct rhythm. To record a radio broadcast or audiobook	To add voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast. To create a remix of a popular song. To add voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast). To compose a soundtrack that can be added to a film project.
Apps	Seesaw, Voice Memos, Keezy,	Seesaw, Voice Memos, Garageband, Anchor, Keezy	Seesaw, Voice Memos, Garageband, Anchor, Keezy,	Seesaw, Voice Memos, Garageband, Anchor, Keezy,
Computer Science: Computational Thinking	To follow simple oral instructions. To spot simple patterns, such as similarities and differences. To sequence simple familiar tasks	To understand what algorithms are. To write simple algorithms To understand the sequence of algorithms is important. To debug simple algorithm. To write algorithms for everyday tasks. To use logical reasoning to predict the outcome of algorithms. To understand decomposition is breaking objects/processes down. To debug algorithms.	To create algorithms for my programming projects. To decompose projects (such as an animation) into steps to create an algorithm. To understand abstraction is focusing on important information. To identify patterns in an algorithm. To use abstraction to focus on what's important in my design. To write more precise algorithms for use when programming. To use simple selection and repetition in algorithms. To use logical reasoning	To solve problems by decomposing them into smaller parts. To use a selection in algorithms. To use logical reasoning to explain how a variety of algorithms work. To evaluate the effectiveness of algorithms. To write precise algorithms for use when programming. To decompose a design or code to focus on specific parts. To use abstraction to hide complexity in my design or code. To recognise and make use of patterns in my design and code. To critically evaluate my work and suggest improvements



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			to detect and correct errors in programs.	
Computer Science: Coding and Programming	To use a mouse, touch screen or appropriate access device to target and select options on screen. To input a simple sequence of commands to control a digital device with support.	To create a simple program on a digital device e.g. Bee Bot. To use sequence in programs. To locate and fix bugs in my program. To understand that programs follow precise instructions. To create programs using different digital devices E.g. Bee Bot or ScratchJr on a tablet. To debug programs of increasing complexity. To use logical reasoning to predict the outcome of simple programs.	To design a program. To create a program using a design. To create a sequence of code. To work with different inputs. To evaluate my program. To use repetition in programs. To use simple selection in programs To work with different outputs. To use logical reasoning to systematically detect and correct errors in program.	To create programs by decomposing them into smaller parts. To use a variety of selection commands in programs. To use conditions in repetition commands To work with variables. To create programs that control or simulate physical systems. To evaluate my work and identify errors. To use a range of sequence, selection and repetition commands to implement my design. To identify the need for, and work with, variables. To create procedures to hide complexity in programs. To identify and write generic code for use across multiple projects. To critically evaluate my work and suggest improvements. To identify and use basic HTML tags (See Computer Networks objectives)
Apps	Beebot	Beebot, Scratch Jnr, Kodable, Tynker,	Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds.	Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds.
Computer Networks	N/A	N/A	To understand that computers in a school are connected together in a network. To understand why computers are networked. To understand the difference between the Internet and the World Wide Web (WWW). To understand that servers on the Internet are located across the	To understand how we view web pages on the Internet. To use search technologies effectively. To understand that web spiders index the web for search engines. To appreciate how pages are ranked in a search engine. To understand what HTML is and recognise HTML tags. To know a range



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			planet. To understand how email is sent across the Internet. To understand how the Internet enables us to collaborate.	of HTML tags and can remix a web page. To create a webpage using HTML.
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Impact

We encourage our children to enjoy and value the curriculum we deliver. We will constantly ask the WHY behind their learning and not just the HOW. We want learners to discuss, reflect and appreciate the impact computing has on their learning, development and wellbeing. Finding the right balance with technology is key to an effective education and a healthy life-style. We feel the way we implement computing helps children realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. We encourage regular discussions between staff and pupils to best embed and understand this. The way pupils showcase, share, celebrate and publish their work will best show the impact of our curriculum. We also look for evidence through reviewing pupil's knowledge and skills digitally through tools like Seesaw and observing learning regularly. Progress of our computing curriculum is demonstrated through outcomes and the record of coverage in the process of achieving these outcomes.