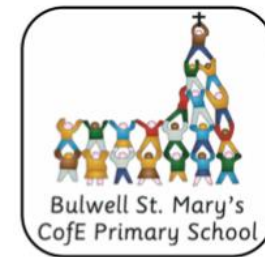


Bulwell St Mary's Primary School

Computing Curriculum and Progression Map



VISION STATEMENT:

At Bulwell St Mary's Primary School, the use of technology is embedded into the curriculum to create experiences and opportunities that enable learners to think creatively and empower them to make choices. Our computing curriculum inspires and engages the children with innovative approaches to learning, providing them with the tools and skills required for life in the future and to use technology safely and respectfully. They will finish their journey as confident, competent and creative users of digital technology.

STRUCTURE:

Computer Science (CS) – pupils are taught the principles of computational thinking; they will design and build programs and understand how computers and computer systems work.

Information technology (IT) – pupils will use information technology to create a range of digital content which inspires and engages the children with innovative approaches to learning, providing them with the tools and skills required for the future.

Digital Literacy (DL) – pupils use technology safely & respectfully.

EXPECTATIONS:

- Computer Science is split into two strands, programming in KS1 and programming and Networks in KS2. Programming is taught through Rodocodo and the course should be covered by the end of the year (on average 6-8 lessons). In KS2, Networks is covered in the summer term.
- Information Technology are **CROSS CURRICULAR embedded skills** lessons that focus on the development of multi-media creation skills.
- Digital Literacy is grouped into 6 strands, covering 1 strand per half term. Digital Literacy is taught through Project Evolve and a minimum of two objectives are to be covered each half term, determined by the Digital Literacy knowledge map.

PROGRAMMES OF STUDY:

	KS1	KS2
CS	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	Design, write & debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems a by decomposing them into smaller parts Use sequence, selection and repetition in programs; works with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms works and to detect and correct errors in algorithms and programs
IT	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing and presenting data and information
DL	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	Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Computer Science (CS)	Information Technology (IT)	Digital Literacy (DL)
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CURRICULUM COVERAGE

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS					CS Programming Rodocodo: Reception Course with support from the Y6 Computing Champions Introduction, sequencing – rotation, pick up, debugging and review.	
	IT Photography and Digital Art I can take a photo of my work using the camera app.		IT Video Creation I can record a short film using the camera app.			
	By the end of the Summer Term, EYFS will cover: - Online relationships and reputation - Online Bullying - Privacy, Security, Copyright and Ownership - Managing Online Information - Self-Image and Identity - Health, Well-being and Lifestyle					
Y1	CS Programming Rodocodo: Year 1 course Introduction, sequencing, debugging, loops, functions and review.					
	IT Presentations, web design and eBook Creation I know how to order images to create a simple storyboard.	IT Animation I know how to create an animation to tell a story with more than one scene.	IT Video Creation I know how to select images and record a voiceover.	IT Photography and Digital Art I know how to use a paint/drawing app to create a digital image	IT Augmented Reality and Virtual Reality I know how to explore an interactive 360 image.	IT Sound I know how to create a sequence of sounds
	DL Online relationships and reputation	DL Online Bullying	DL Privacy, Security, Copyright and Ownership	DL Managing Online Information	DL Self-Image and Identity	DL Health, Well-being and Lifestyle

Y2	CS Programming Rodocodo: Year 2 course Sequencing, debugging, loops, functions, loops, debugging, review					
	IT Presentations, web design and eBook Creation I know how to add a voice recording to a storyboard.	IT Animation I know how to create a simple stop motion animation.	IT Video Creation I know how to begin to use green screen techniques with support	IT Photography and Digital Art I know how to edit a photo (crop, filters, mark up etc)	IT Augmented Reality and Virtual Reality I know how to bring objects into my surroundings using Augmented Reality.	IT Sound I know how to create a musical composition and record my own sound effects.
	DL Online relationships and reputation	DL Online Bullying	DL Privacy, Security, Copyright and Ownership	DL Managing Online Information	DL Self-Image and Identity	DL Health, Well-being and Lifestyle
Y3	CS Programming Rodocodo: Year 3 course loops, functions, loops (patterns) debugging, functions, loops					CS Networks Connecting Computers
	IT Presentations, web design and eBook Creation I know how to create a digital timeline including different media - sound and video.	IT Animation I know how to create animations of faces to speak in role with more life-like realistic outcomes.	IT Video Creation I know how to independently create a green screen clip.	IT Photography and Digital Art I know how to create and enhance a digital image using a range of tools, pens, brushes and effects such as crop, brightness, contrast and resize.	IT Augmented Reality and Virtual Reality I know how to create my own images and bring it into my surroundings through AR.	IT Sound I know how to experiment with live loops to create a song.
	DL Online relationships and reputation	DL Online Bullying	DL Privacy, Security, Copyright and Ownership	DL Managing Online Information	DL Self-Image and Identity	DL Health, Well-being and Lifestyle
Y4	CS Programming Rodocodo: Year 4 course Loops, functions, trickier loops, debugging, loops, selection (if), review					CS Networks The Internet

	IT Presentations, web design and eBook Creation I know how to create an eBook with text, images and sound.	IT Animation I know how to use line draw tool to create animations.	IT Video Creation I know how to add animated titles, transitions and simple subtitles to a video clip.	IT Photography and Digital Art I know how to use shapes and drawing tools to create digital art.	IT Augmented Reality and Virtual Reality I know how to use the camera to create a 360 image. I know how to create my own 360 video.	IT Sound I know how to record a radio broadcast or audiobook.
	DL Online relationships and reputation	DL Online Bullying	DL Privacy, Security, Copyright and Ownership	DL Managing Online Information	DL Self-Image and Identity	DL Health, Well-being and Lifestyle
Y5	CS Programming Rodocodo: Year 5 course debugging, functions & loops, nested loops, if statements, repeat loops, variables, review					CS Networks Sharing Information
	IT Presentations, web design and eBook Creation I know how to create and export an interactive presentation including a variety of media, animations, transitions and other effects.	IT Animation I know how to effectively use animation tools in presenting software to create animations	IT Video Creation I know how to use cutaway and split screen tools in iMovie OR I know how to further improve green screen clips using crop and resize and explore more creative ways to use the tool	IT Photography and Digital Art I know how to manipulate shapes to create digital art.	IT Augmented Reality and Virtual Reality I know how to create an AR experience using objects I have created to explain a concept. I know how to create an interactive VR experience	IT Sound I know how to add voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast.
	DL Online relationships and reputation	DL Online Bullying	DL Privacy, Security, Copyright and Ownership	DL Managing Online Information	DL Self-Image and Identity	DL Health, Well-being and Lifestyle
Y6	CS Programming Rodocodo: Year 6 course Functions & loops, repeat loops, variables, Selection, while loops, debugging.					CS Networks Communication

	IT Presentations, web design and eBook Creation I know how to design an app prototype that links multimedia pages together with hyperlinks.	IT Animation I know how to choose and create different types of animations to best explain my learning. (3D animation, GIF etc)	IT Video Creation I know how to create videos using a range of media - green screen (masking tool), animations, film and image.	IT Photography and Digital Art I know how to edit a picture to remove items, add backgrounds, merge 2 photos I know how to use a 3D drawing app to create a realistic representation of world objects	IT Augmented Reality and Virtual Reality I know how to create an interactive VR experience. I know how to create an interactive poster using AR	IT Sound I know how to compose a soundtrack that can be added to a film project.
	DL Online relationships and reputation	DL Online Bullying	DL Privacy, Security, Copyright and Ownership	DL Managing Online Information	DL Self-Image and Identity	DL Health, Well-being and Lifestyle