

# BISHOP LONSDALE CHURCH OF ENGLAND PRIMARY SCHOOL AND NURSERY

*BECOMING **I**NDEPENDENT **S**UCCESSFUL **H**ONEST **O**PEN-MINDED **P**EOPLE*

## Computing – Long-term planning

CS = Computer Science    IT = Information Technology    DL = Digital Literacy

Nursery & Reception  (2-year topic cycle)	Autumn 1		Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Cycle 1	Amazing Me	Rainbows and Sparkles	People Who Help Us	Fairy Tales and Forests	Marvellous Minibeasts and Fabulous Flowers	Travel and Transport
	Cycle 2	Food, Glorious Food	Let's Celebrate	Blast Off	Hats and Hammers	Animal Magic	Sea Life and Sandcastles
	<b>EYFS coverage includes a range of repeated activities across the year related to early Computing concepts and skills, not necessarily specific to the current topic, including:</b> recognising simple repeating patterns; error-spotting in patterns; following a map route; following steps in order; using keyboards as part of letter/number recognition; using technology and devices in roleplay and recognising their purpose; using devices/technology for games and art; learning IT skills/concepts including using buttons to open, refresh, draw, write, erase and save work on devices.						
	<b>Staying safe online – Autumn (DL)</b> (Project Evolve) Online bullying; Online relationships; Privacy & security.			<b>Staying safe online – Spring (DL)</b> (Project Evolve) Copyright & ownership; Online reputation.		<b>Staying safe online – Summer (DL)</b> (Project Evolve) Health, wellbeing & lifestyle; Self-image & identity.	

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		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Computing units	<b>Technology around us (CS / IT / DL)</b> NCCE Y1: Technology around us. <b>Laptops with mice</b> <b>Tablets</b>	<b>Staying safe online 1 (DL)</b> Project Evolve: Online bullying Online relationships Online reputation Health, wellbeing & lifestyle Self-image & identity	<b>Digital writing (IT)</b> NCCE Y1: Digital writing. <b>Laptops with mice</b> <b>Word</b>  <b>Safer Internet Day</b>	<b>Staying safe online 2 (DL)</b> Project Evolve: Managing online information Privacy & security Copyright & ownership	<b>Patterns and algorithms (CS)</b> CAS: House patterns. CAS: Sorting objects. CAS: Crazy character algorithms. CAS: Sharing sweets. CAS: Creating patterns. CAS: Bee-Bots tinkering. <b>Bee-Bots</b>	<b>Controlling robots (CS)</b> NCCE Y1: Programming – Moving a robot. CAS: Bee-Bot basics. <b>Bee-Bots</b>
	Cross-curricular IT	<b>IT-based tasks</b> e.g. word processing, art.		<b>IT-based tasks</b> e.g. word processing, art.		<b>Art – Street View</b> Digital photography (Summer 1) <b>Tablets</b>	<b>IT-based tasks</b> e.g. word processing, art, photos.
		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2	Computing units	<b>Using the internet (CS / DL)</b> Twinkl Y2: Using the internet. <b>Laptops with mice</b> <b>Tablets</b> <b>Seesaw</b>	<b>Staying safe online 1 (DL)</b> Project Evolve: Online bullying Online relationships Online reputation	<b>PowerPoint presentations (IT)</b> Twinkl Y2: Presentation skills (PowerPoint). <b>Laptops with mice</b> <b>PowerPoint</b>  <b>Safer Internet Day</b>	<b>Thinking like a computer (CS)</b> CAS: Head, shoulders, knees & toes CAS: Cake shopping list. CAS: Spelling rules. CAS: Story sequencing. CAS: River crossing. CAS: World map logic.	<b>Control programs (CS)</b> CAS: Bee-Bots 123. CAS: Bee-Bot route. Twinkl Y2: Programming turtle (lessons 1 & 2 only). CAS: Scratch tinkering (KS1). CAS: Pizza Pickle. <b>Bee-Bots</b> <b>Laptops with mice</b> <b>Scratch</b>	<b>Staying safe online 2 (DL)</b> Project Evolve: Copyright & ownership Health, wellbeing & lifestyle Managing online information Privacy & security Self-image & identity
	Cross-curricular IT	<b>IT-based tasks</b> e.g. word processing, art, photos.		<b>IT-based tasks</b> e.g. word processing, art, photos.		<b>IT-based tasks</b> e.g. word processing, art, photos, PowerPoint.	<b>Art – Portraits and poses</b> Digital drawing, digital photography & editing. (Summer 2) <b>Laptops with mice</b> <b>Tablets</b> <b>Paint.Net</b> <b>Pixlr</b>

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Year 3		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing units	<u>Word processing (IT)</u> Twinkl Y3: Word processing skills (Word). <b>Laptops with mice</b> <b>Word</b>	<u>Staying safe online 1 (DL)</u> Project Evolve: Online bullying Online relationships Self-image & identity	<u>Computer networks (CS)</u> NCCE Y3: Connecting computers. CAS: Network hunt.	<u>Computational thinking (CS)</u> CAS: Intro to decomposition. CAS: Getting ready for school. CAS: 2D shape drawing. CAS: Shapes and crystal flowers (repetition). Probot shape drawing. <b>Laptops with mice</b> <b>Scratch</b> <b>Probot</b>	<u>Staying safe online 2 (DL)</u> Project Evolve: Managing online information Online reputation Privacy & security Copyright & ownership Health, wellbeing & lifestyle	<u>Stop-frame animation (IT)</u> NCCE Y3: Stop-frame animation. <b>Laptops with mice</b> <b>Tablets</b> <b>Stop-frame app</b>
	Cross-curricular IT	<u>IT-based tasks</u> e.g. PowerPoint, word processing, charts/graphs.		<u>Art – Ammonite</u> (Spring 1) Digital photography (lighting, positioning) and editing. <b>Laptops with mice</b> <b>Tablets</b> <b>Pixlr</b>	<u>IT-based tasks</u> e.g. PowerPoint, word processing, charts/graphs.	<u>IT-based tasks</u> e.g. PowerPoint, word processing, charts/graphs.	<u>Art – People and places</u> (Summer 2) Copy/paste images into a presentation / collage. Digital photography. <b>Laptops with mice</b> <b>Tablets</b> <b>PowerPoint</b>
Year 4		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing units	<u>Understanding the internet (CS)</u> NCCE Y4: The Internet. CAS: Modelling the internet.	<u>Staying safe online 1 (DL)</u> Project Evolve: Online bullying Online relationships Online reputation Health, wellbeing & lifestyle Self-image & identity	<u>Data-logging (IT / CS)</u> NCCE Y4: Data logging. <b>Dataloggers</b> <b>Laptops with mice</b>	<u>Photo editing (IT)</u> NCCE Y4: Photo editing. <b>Laptops with mice</b> <b>Tablets</b> <b>Paint.Net</b> <b>Pixlr</b>	<u>Staying safe online 2 (DL)</u> Project Evolve: Copyright & ownership Managing online information Privacy & security	<u>Programming problem-solving (CS)</u> CAS: Reusing recipes. CAS: Bug in the water cycle. CAS: Fossil formation. CAS: Viking Raid animation. <b>Laptops with mice</b> <b>Scratch</b>
	Cross-curricular IT	<u>IT-based tasks</u> e.g. PowerPoint, word processing, charts/graphs.		<u>IT-based tasks</u> e.g. PowerPoint, word processing, charts/graphs.	<u>Art – Vista</u> (Spring 2) Digital photography and editing. <b>Laptops with mice</b> <b>Tablets</b> <b>Paint.Net</b> <b>Pixlr</b>	<u>IT-based tasks</u> e.g. PowerPoint, word processing, charts/graphs.	

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Year 5		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing units	<b>Programming efficiently (CS)</b> Probot and Scratch games (procedures). <b>Laptops with mice</b> <b>Scratch</b> <b>Probot</b>	<b>Simulations and rovers (CS / IT)</b> <b>Laptops with mice</b> <b>Scratch</b>	<b>Staying safe online 1 (DL)</b> Project Evolve: Online bullying Online relationships Online reputation Self-image & identity	<b>Systems, searches and sending data (CS / DL)</b> NCCE Y5: Sharing information. NCCE Y6: Communication. CAS: Selecting search. CAS: Ranking search.	<b>Micro:bits programming</b> <b>Laptops with mice</b> <b>Micro:Bits</b>	<b>Staying safe online 2 (DL)</b> Project Evolve: Privacy & security Managing online information Health, wellbeing & lifestyle Copyright & ownership
	Cross-curricular IT	<b>IT-based tasks</b> e.g. PowerPoint, word processing, charts/graphs.		<b>Art – Line, light and shadow</b> (Spring 1) Digital photography and editing, digital art. <b>Laptops with mice</b> <b>Tablets</b> <b>Paint.Net</b> <b>Pixlr</b>	<b>IT-based tasks</b> e.g. PowerPoint, word processing, charts/graphs.	<b>IT-based tasks</b> e.g. PowerPoint, word processing, charts/graphs.	<b>D&amp;T – Architecture</b> (Summer 2) 3D modelling using TinkerCAD. <b>Laptops with mice</b>
Year 6		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing units	<b>Databases (CS / IT)</b> NCCE Y5 Flat-file databases. <b>Laptops with mice</b> <b>Tablets</b>	<b>Programing with variables (CS)</b> CAS: Logical number sequences. CAS: Maths quiz 1 (selection). CAS: Introduction to variables. CAS: Maths quiz 2 (variables). Micro:Bit games: Against the clock, fortune teller. Micro:Bit game: Bluetooth hot potato. <b>Laptops with mice</b> <b>Scratch</b> <b>Micro:Bits</b>	<b>Staying safe online 1 (DL)</b> Project Evolve: Online bullying Online relationships Online reputation Health, wellbeing & lifestyle Self-image & identity	<b>Web design (CS / IT)</b> NCCE Y6: Web page creation. CAS: Introduction to HTML. <b>Laptops with mice</b> <b>Tablets</b>	<b>Staying safe online 2 (DL)</b> Project Evolve: Managing online information Privacy & security Copyright & ownership	<b>Micro:bits games and gadgets</b> <b>Laptops with mice</b> <b>Micro:Bits</b>  <b>OR, if offered:</b>  <b>DCCT – Rambots (CS)</b> DCCT robot programming and control challenges. <b>Robots provided</b>
	Cross-curricular IT	<b>IT-based tasks</b> e.g. PowerPoint, word processing, charts/graphs.		<b>Art – Inuit</b> (Spring 1) Manipulation of photos/scans and digital images. <b>Laptops with mice</b> <b>Tablets</b> <b>Paint.Net</b>	<b>IT-based tasks</b> e.g. PowerPoint, word processing, charts/graphs.	<b>D&amp;T – Make Do and Mend</b> (Summer 1) Presentation of research into the WW2 campaign. <b>Laptops with mice</b> <b>PowerPoint</b>	<b>Art – Environmental Artists</b> (Summer 2) Combine images, sound, effects in a presentation/video. <b>Laptops with mice</b> <b>Tablets</b> <b>PowerPoint</b>