

Computing 8 Year Overview

Intent: For pupils to embrace the opportunities of technology and to use it purposefully, creatively and responsibly.

Strands:			
Computer Science	Information Technology	Digital Literacy	e-Safety

Purpose									
Networks	Creating Media	Data and Information	Design and Development	Computing systems	Impact of Technology	Algorithms	Programming	Effective use of tools	Safety and Security
NW	CM	DI	DD	CS	IT	AL	PG	ET	SS

	E-Safety (across the year)	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Pre-School	Recognise how to use technology safely at home and in school.	Use digital technology to store and access content with some support. Create content using digital technology. Begin to use a mouse to navigate around a computer screen.	Identify algorithms used in everyday life. Begin to sequence instructions. Recognise, use and understand directional language. Perform a simple program on the floor robot. Recognise that a string of instructions or commands placed together can create a simple program. Record the program used using symbols.	Describe what personal information is. Understand the importance of asking for help from an adult when on the internet. Identify some ways technology is used at home and in school.			
Reception							
Key Stage 1:							
Year 1	Use technology safely and respectfully, keeping personal information private	Unit name: Technology around us Purpose: CS, AL Software: https://paintz.app/ or Paint	Unit name: Digital painting Purpose: ET, CM Software: https://paintz.app/ or Paint	Unit name: Moving a robot Purpose: AL, PG Hardware: Bee-Bot	Unit name: Grouping data Purpose: DI, AL Software: Powerpoint	Unit name: Digital writing Purpose: ET, CM Software: Microsoft Word	Unit name: Programming animations Purpose: PG, DD Software: Scratch Jr
Year 2	Identify where to go for help and support when they have concerns about content or contact	Unit name: IT around us Purpose: NW, CS Software: Powerpoint	Unit name: Digital photography Purpose: ET, CM Software: PixLR App	Unit name: Robot algorithms Purpose: AL, PG Hardware: Bee-Bots/Bee-Bot App	Unit name: Pictograms Purpose: DI, ET Software: https://www.j2e.com/jit#pictogram	Unit name: Digital music Purpose: CM, DD Software: https://musiclab.chromeexperiments.com/	Unit name: Programming quizzes Purpose: PG, DD Software: Scratch Jr Logins
Key Stage 2:							
Year 3	Give examples of the risks posed by online communications. Understand that comments made online that are hurtful or offensive are the same as bullying	Unit name: Connecting Computers Purpose: NW, CS Software: https://paintz.app/	Unit name: Stop-frame animation Purpose: ET, CM Software: iMotion App	Unit name: Sequencing sounds Purpose: PG, DD Software: Scratch logins	Unit name: Branching databases Purpose: DI, ET Software: https://www.j2e.com/jit5?fileId=FDrqUQoSY1jKiBHN#branch	Unit name: Desktop publishing Purpose: ET, CM Software: Adobe Spark or Publisher	Unit name: Events and actions in programs Purpose: PG, DD Software: Scratch logins
Year 4	Use features of applications and devices in order to communicate ideas, work or messages professionally	Unit name: The Internet Purpose: NW, SS Software: https://scratch.mit.edu/projects/63473366/editor/	Unit name: Audio Production Purpose: ET, CM Software/ Hardware: Audacity/ headphones	Unit name: Repetition in shapes Purpose: AL, PG URL: https://turtleacademy.com/playground https://fmslogo.sourceforge.io/	Unit name: Data logging Purpose: CS, DI Hardware: Data Loggers/ temperature sensor	Unit name: Photo editing Purpose: ET, CM URL: https://paint.net/	Unit name: Repetition in games Purpose: PG, DD Software: Scratch logins

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<p>Year 5</p> <p>PCs iPads Either Unplugged</p>	<p>Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems.</p> <p>Understand the effect of online comments and show responsibility and sensitivity when online.</p>	<p>Unit name: Systems and Searching Purpose: NW, ET Software: Powerpoint</p>	<p>Unit name: Video production Purpose: CM, DD Software: iMovie/ Green screen App Microsoft Photos</p>	<p>Unit name: Selection in physical computing Purpose: PG, CS Hardware: Crumble controller+starter kit+ motor</p>	<p>Unit name: Flat-file databases Purpose: DI, ET Software: https://www.j2e.com/data/examples/countries j2e logins Lessons:</p>	<p>Unit name: Introduction to vector graphics Purpose: ET, CM Software: Google Drawings App/ Logins</p>	<p>Unit name: Selection in quizzes Purpose: AL, PG Software: Scratch logins</p>
<p>Year 6</p> <p>PCs iPads Either Unplugged</p>	<p>Choose the most suitable applications and devices for the purposes of communication</p>	<p>Unit name: Communication and Collaboration Purpose: NW, ET Software: Google Drive/ Slides (Work collaboratively)</p>	<p>Unit name: Webpage creation Purpose: CM, DD Software: Google Sites</p>	<p>Unit name: Variables in games Purpose: PG, DD nccce.io/scorechange or /scoreboard nccce.io/pongstarter or fruit catcher or catchertemplate or chatbocode/ bananas</p>	<p>Unit name: Introduction to spreadsheets Purpose: ET, DI Software: Microsoft Excel</p>	<p>Unit name: 3D modelling Purpose: ET, CM Software: Tinkercad login</p>	<p>Unit name: Sensing movement Purpose: PG, CS Hardware: Micro:bit Software: Microsoft Make Code</p>