Walkwood
Church of England Middle School

# Computing

| | Wk | Year 7 — 2 lessons per fortnight | | |
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| | | **Topic** | **Learning Content** | **Assessment** |
| Autumn | 1 | Expectations and eSafety | Pupils revisit the school's expectations for using computing equipment responsibly, and how to stay safe online, covering topics such as personal information, passwords, and reporting concerns.<br><br>*Keywords: eSafety, expectations, responsible use, personal information, password, reporting* | |
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| | 4 | | | Baseline Assessment |
| | 5 | Intro to Programming | Pupils are introduced to programming concepts such as sequencing, loops, and selection, using a block-based language to build simple programs.<br><br>*Keywords: programming, sequence, loop, selection, algorithm, block-based* | |
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| | 8 | | | A working calculator |
| | 9 | | | Digital Quiz |
| | 10 | Office Skills and File Management | Pupils learn to use word processing, spreadsheet, and presentation software, and develop good habits for organising, naming, and saving files.<br><br>*Keywords: word processing, spreadsheet, presentation, file management, folder, naming convention* | |
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| | 15 | | | Digital Quiz |
| Spring | 1 | Introduction to HTML | Pupils learn the basics of HTML to create and structure a simple webpage, including headings, paragraphs, images, and links.<br><br>*Keywords: HTML, tag, heading, paragraph, image, hyperlink* | |
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| | 5 | | | Completed Web page |
| | 6 | | | Digital Quiz |
| | 7 | Vector Graphics | Pupils learn to create and edit vector-based images, using shapes, layers, and tools to design graphics that scale without losing quality.<br><br>*Keywords: vector graphics, shape, layer, scalability, design tool* | |
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| | 11 | | | Peer Review |
| | 12 | | | Digital Quiz |
| Summer | 1 | Computational Thinking | Pupils develop problem-solving skills through decomposition, pattern recognition, abstraction, and algorithm design, applying these to solve unplugged and on-screen challenges.<br><br>*Keywords: decomposition, pattern recognition, abstraction, algorithm, problem-solving* | |
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| | 6 | | | Problem Solving |
| | 7 | | | Digital Quiz |
| | 8 | Micro: bit Madness | Pupils learn to program physical devices using the micro:bit, applying inputs, outputs, and sensors to build simple interactive projects.<br><br>*Keywords: micro:bit, input, output, sensor, physical computing* | |
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| | 10 | | | |
| | 11 | | | Working Micro: bit program |
| | 12 | | | Digital Quiz |

| | Year 8 — 2 lessons per fortnight | | |
|---|---|---|---|
| | **Topic** | **Learning Content** | **Assessment** |
| | Expectations and eSafety | | |
| | HTML and Advanced Web Design | Pupils build on their web design knowledge, using HTML and CSS to create multi-page websites with structured layouts and clear navigation, while considering accessibility and user experience in their design choices.<br><br>*Keywords: HTML, CSS, layout, navigation, accessibility, user experience* | |
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| | Digital Media Campaign | Pupils plan and produce a digital media campaign, combining graphic design, photography, and video editing skills, while considering their target audience, copyright, and effective digital communication.<br><br>*Keywords: graphic design, photography, video editing, audience, copyright, digital communication* | |
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| | | | Presentation |
| | | | Assessment Rubric |
| | Binary, Images and Graphics | Pupils learn how computers represent data using binary, including bits and bytes, and explore how images are stored and displayed through pixels, resolution, bitmap graphics, and vector graphics.<br><br>*Keywords: binary, bit, byte, pixel, resolution, bitmap, vector graphics* | |
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| | | | Assessment Rubric |
| | | | Digital Quiz |
| | Python Programming | Pupils learn to write and debug programs in Python, using variables, selection, and iteration, and applying these skills to build complete, functioning programs.<br><br>*Keywords: Python, variable, selection, iteration, function, debugging* | |
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| | | | Skills Challenges |
| | Cybersecurity and Digital Society | Pupils learn to identify cyber threats such as phishing, and understand how passwords, privacy, and encryption help protect personal data, while considering their digital footprint and the legal responsibilities set out in the Computer Misuse Act.<br><br>*Keywords: cyber threat, password, phishing, privacy, encryption, digital footprint, Computer Misuse Act* | |
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| | | | Summative Assessment |
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