Year 8 Topics

In year 8 we teach the following modules over the course of the year. Each module draws on prior learning from Year 7 and builds on understanding from the KS2 programme of study. Each module develops and deepens the Core knowledge that will underpin all areas of the curriculum at KS3 and KS4.

Topic	Rationale	Knowledge acquisition	Key vocabulary	Skills and enrichment
HTML	Students need to be able to use programming techniques and software to create a website	• HTML – Opening, creating and saving webpages in Notepad • HTML – formatting text and using images • CSS • Create own website • Test and evaluate own website	Open, edit, view in browser, HTML, tags, head, body, text, font, hyperlinks, format, image, colour CSS, test, evaluate, review, improve, broken link.	• IT skills - Notepad and Dreamweaver • Programming – HTML • Independence • Reading • Literacy • Problem solving • Numeracy • Working collaboratively • Oracy
Online Safety	Students need to understand the importance of being safe online, and practise online safety.	How and when to seek support with online issues • sign posting at school, home, police • personal data, privacy settings, online golden rules How to evaluate what you see online • age restrictions • impact of confidence (including body confidence) • impact of quality of life, physically and mental health (Suicide, self harm and eating disorders)	Data, privacy settings, social media, sharing, online grooming, sexting, copyright law, cyberbullying, trolling, appropriate behaviour, permanence, consequences, stalking, plagiarism, profile, virus, infect, malware, worms, trojan horse, spyware, anti-virus software, reliability, authenticity, misinformation, disinformation, online reputation, digital footprint, influencers, advertising, gifted, bloggers, vloggers, social media.	• Oracy • Literacy • ICT • Reading • Research • Communication • Working collaboratively • Analysis • Evaluation

		• content and how it can be used and shared How to recognise techniques for persuasion • online content which tries to make people believe something false is true and/or mislead • techniques that companies use to persuade people to buy something • ways in which games and social media companies try to keep users online longer • criminal activities such as grooming How to identify online risks • discussing the ways in which someone may put themselves at risk online • risks posed by another person's online behaviour • positive and negative risk taking • online reputation and the positive and negative aspects of an online digital footprint		

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Scratch	Students need to be able to program using a block editor (graphical user interface)	• Introduction to Scratch • Run a program, switch between costumes and incorporate 'speech' • Moving a sprite around a maze • Importing different sprites • Creating a simple design plan for a game, to include full details (eg background, sprites, aim of the game) • Use Scratch to program a game	Program, Scratch, backdrop, sprite, event, wait command, collision detection, forever loop, IF…THEN condition, import, shrink, rotation, variable, delay, peer review, development.	• Oracy • Literacy • ICT skills - Scratch • Communication • Working collaboratively • Analysis • Evaluation • Algorithms • Programming • Problem solving • Logic • Creativity • Design
The internet	Students need to be aware of the methods, protocols and hardware involved in networks and data transfer on the internet.	• What is the internet and how does it work? • How packets travel from address to destination • What are domain names, how does a DNS system work? • How search engines look through lists of Domain names until they get to the one that's required	Transmission, data, packets, trace, router, server, host, linear search, search engine, domain name, DNS server, URL, web address, protocols, networks, hardware, software	• Oracy • Literacy • Communication • Working collaboratively • Problem solving • Research

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Grand Designs	Students need to be able to use ICT and STEM techniques to plan and project-manage a problem involving 3D modelling.	• Gantt Charts • Cost analysis • Sketch-up skills • Advanced sketch up skills including use of 3D warehouse and resizing	Spreadsheet, plan, format, cell, row, column, fill colour, border, text Spreadsheet, formula, chart, function, sum, total, currency, addition, plus, subtract, minus, multiply, asterisk, divide, slash 3D modelling, extrude, solid, keyboard shortcut, pan, scale, transform, import, model	• Oracy • Literacy • Numeracy • ICT skills – Excel, Google Sketchup, AD Draw • Communication • Working collaboratively • Problem solving • Creativity • Design
Advanced programming in Small Basic	Students need to be able to use more sophisticated techniques on a command line IDE, moving on from block code editors and being more explicit about the programming techniques used.	• Inputs and outputs, opening, editing and running a program in Small Basic • Manipulation of variables, giving personalised output messages. Basic sequencing • Selection techniques, outputs driven by criteria • Looping and iteration	Bug, edit, compile, run, selection, iteration and sequencing, IF, Else While, For.	• Oracy • Literacy • Communication • Working collaboratively • Algorithms • Programming • Problem solving • Logic • Numeracy