

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
HT1 - 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
HT2 - 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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HT3 - Data Representation	Students will be introduced to the method as to how computer systems represent data. They will understand how computer store data and be introduced to different numbering systems	Binary numbers ASCII and character sets Images Hexadecimal numbers Sound Binary maths	Binary Bit Byte, Base 2, digit, Place value, ASCII, Character, Code, Unicode, Encoding, Standard, Pixel, Resolution, Colour depth, Bitmap, File size, Compression	Finding values Analysing data Representing data Identifying data values Problem Solving Maths
HT4 - AI	Students will be introduced to the ethical side of AI and how it is used in the modern world. They will identify best practice for use within the classroom.	What is AI Machine learning Ethics of AI Image recognition technology Turing test and chatbot Rate my review -scratch program	Machine learning, Training data, Pattern, Model Prediction, Ethics, Bias, Privacy, Fairness, Responsibility, Image recognition, Pixels, Face detection, Classification, Tagging, Turing Test Chatbot, Conversation, Human-like Response	Understand Analysing dangers Using AI Discussing outcomes

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HT5 - App Design	Students will use research the use of apps and evaluate the design and function	Designing an app Introduction to online safety Understanding mobile phone hardware Online safety in app development Using App Lab	User-centred design, Wireframe, User interface (UI), Navigation, Prototype Encryption, Password security, Data privacy, Consent, Processor (CPU) Sensor, Battery life, Storage, Screen resolution, App Lab, User interface (UI), Event-driven programming, Screen, Button	Research Layout Design Interaction Design Evaluating Feedback gathering
HT6 - Games Design – Mission Maker	Students will understand the different elements required to make a 3D game using mission maker	Building a game environment Doors, pickups introduction to rules Characters, game attributes, player attributes Special effects, media, pop ups Advanced features (combinations of rules, teleportation Testing Evaluation	3D environment, Terrain, Object placement, Textures, Lighting, Trigger Collision, Rule, Pickup, Door mechanism, Character model, Health Speed, Strength, Inventory, Animation Sound effect, Visual effect, Pop-up, Dialogue box, Conditional rule, Event, Teleportation, Portal, Sequence, Playtesting, Bug, Glitch, Feedback, Refinement	Level Design Narrative Design Programming 3D design