



## What Pupils Learn in KS3

Themes – Digital Literacy in Software, Hardware and The Internet, Computational Theory and Computer Science principals, Multimedia Design

End of unit assessments, Assessed homework, Relevant Strands

Year Group	Autumn term		Spring term		Summer term	
7	<p><b>Using DWS system</b></p> <p>Introduction to our school network. Learning how to use school emails appropriately. Organising a suitable folder structure and the importance of naming files. Learning how to stay safe online.</p> <p><b>Strand 3: Digital literacy</b> Assessed h/w: Log onto portal at home/ rules for an IT room/rules for sending good emails/ <b>Baseline Assessment</b></p>	<p><b>Web-based research and using Word</b></p> <p>Researching about endangered animals and presenting findings in a report. Learning to reference sources and searching for relevant information online.</p> <p><b>Strand 4: Project skills</b> Assessed h/w: Research questions/Word processor quiz/refelction on eassy <b>End of unit Assessment</b></p>	<p><b>Graphics Manipulation</b></p> <p>Learning how to use Image editing software to produce particular effects; understanding why these techniques are in use and produce a Magazine cover.</p> <p><b>Strand 2 and 4: Knowledge of Computing and Project Skills</b> Assessed h /w: different uses of image manipulation/comparisons of file types and compression types <b>End of unit Assessment</b></p>	<p><b>Scratch Programming</b></p> <p>Follow along with the online tutorials and explanation of available tools to create your very own Maze Game.</p> <p>Develop your skills and add complexity in this fun and interactive environment.</p> <p><b>Strand 1 and 4: Computer Science and Project Skills</b> Assessed h/w: Game Design Sheet/creating a maze backdrop <b>End of unit Assessment</b></p>	<p><b>Perfect Presentations!</b></p> <p>A look into the elements of the perfect PowerPoint presentation. Using text images and sounds to create a professional presentation to be delivered by their group to their peers.</p> <p><b>Strand 3 and 4: Digital Literacy and Project Skills</b> Assessed h/w: create a slideshow using transitions/animations <b>End of unit Assessment</b> <b>End of year Assessment</b></p>	<p><b>Video Trailer</b></p> <p>Introduction to storyboarding and a video editing suite. Looking at examples of trailers and learning the skills to import and edit their own video clips as well as sound to create a coherent trailer for DWS.</p> <p><b>Strand 2 and 4: Knowledge of Computing and Project Skills</b> Assessed h/w: storyboards/peer review of storyboard/evaluation <b>End of unit Assessment</b></p>
8	<p><b>Impact IT and Computing</b></p> <p>In this topic the focus is understanding the impact of IT within our lives as well as the laws and regulations that may affect us. The unit also investigates how networks work and the way we sort information on a computer.</p>	<p><b>Formatting and analysing online content</b></p> <p>Pupils look at sources online and how to optimise searches and what to look out for in biased content. Pupils also checked on how they reference content and proof checking of documents.</p>	<p><b>Small Basic Language</b></p> <p>Algorithms, Flowchart Basics, Basic Output in Small Basic, Variables, Data types, calculations, input in flowcharts &amp; Small Basic, selection, relational operators, basic selection, in flowcharts &amp; Small Basic, nested selection in flow charts and Small Basic</p> <p><b>Strand 1 and 4 Computer Science and Project Skills</b></p>	<p><b>Small Basic Project</b></p> <p>Count-based iteration, for loops in flowchart &amp; Small Basic, condition-based iteration, while loops in flowcharts 7 Small Basic, Validation in flowcharts &amp; Small Basic, Skills Building Program Challenges 1 - 6.</p> <p><b>Strand 1 and 4 Computer Science and Project Skills</b></p>	<p><b>Cinema Spreadsheet</b></p> <p>Basics of Excel; cells, columns, rows datatypes, formatting of cells: Spreadsheet formula; using calculation operators, using numbers, contents of cells: spreadsheet functions; structure of functions and parameters, sum, average, max, min: spreadsheet charts/graphs: Cinema Evaluation Task</p>	<p><b>Web Development</b></p> <p>Pupils will be learning how to code in HTML and understand how a webpage can be formatted. Pupils will also learn about CSS and how they be used to stylize a webpage even further.</p> <p><b>Strand 3 and 4 Digital Literacy and Project Skills</b></p>

	<p><b>Strand 3 Digital Literacy</b></p> <p>Assessed h/w: Laws, How IT has impacted lives, Networks and rules of ITr</p> <p>End of unit Assessment</p>	<p><b>Strand 3 and 4 Digital Literacy and Project Skills</b></p> <p>Assessed h/w: Bias, Referencing and prof checking.</p> <p>End of unit Assessment</p>	<p>Assessed h/w: Developing solutions to various programs</p> <p>End of unit Assessment</p>	<p>Assessed h/w: Creating solutions to various program scenarios</p> <p>End of unit Assessment</p>	<p>creating a design of a cinema seating spreadsheet</p> <p><b>Strand 3 and 4 Digital Literacy and Project Skills</b></p> <p>End of unit exam</p>	<p>Assessed h/w: HTML tags, understanding of tags and CSS</p> <p>End of unit Assessment</p>
9	<p><b>Developing Technologies</b></p> <p>Recap of using the DWS IT System, Computer Networks, Computer Law, Impact of ICT on Society</p> <p><b>Strand 3 Digital Literacy</b></p> <p>Assessed h/w: Population</p> <p>Baseline Examination</p> <p>End of unit Assessment</p>	<p><b>Searching Online and Bias</b></p> <p>Searching Techniques using search Engines, Harvard APA referencing, Identifying Bias sources, proof checking</p> <p><b>Strand 2 and 4 Computing Knowledge and Project Skills</b></p> <p>Assessed h/w: Researched Report on Computer Hardware</p> <p>End of unit Assessment</p>	<p><b>Python</b></p> <p>Decomposition of a problem, creating algorithms to solve problems, sequence, selection, iteration programming techniques, variables and system development life cycle</p> <p><b>Strand 1 and 4 Computer Science and Project Skills</b></p> <p>Assessed h/w: Developing solutions to various programs</p> <p>End of unit Assessment</p>	<p><b>Python</b></p> <p>Solving a range of programming challenges using the skills and techniques gathered in previous half term.</p> <p><b>Strand 1 and 4 Computer Science and Project Skills</b></p> <p>Assessed h/w: Creating solutions to various program scenarios</p> <p>End of unit Assessment</p>	<p><b>Binary and Hexidecimal</b></p> <p>Base 2, 10 and 16 number systems and how they are used in Computer science.</p> <p><b>Strand 1 Computer Science</b></p> <p>Assessed h/w: Conversion calculations between number systems</p> <p>End of Year Examination</p> <p>End of unit Assessment</p>	<p><b>Project Life Cycle</b></p> <p>Using the software development life cycle to develop solutions to a variety of different real-world scenarios.</p> <p><b>Strand 4 Project Skills</b></p> <p>End of Year Examination</p> <p>End of unit Assessment</p>

### Text books and web resources:

- <https://www.bbc.com/education/subjects/zf9d7ty>
- <http://www.teach-ict.com/>
- <https://www.codecademy.com/>
- <http://www.repl.it/>
- <http://www.code.org>
- <http://www.teach-ict.com/>

## Revision guides:

- Jon Duckett – HTML & CSS
- CGP – GCSE OCR Computer Science (For the grade 9-1 Course)
- CGP – GCSE ICT
- CGP – Functional Skills ICT