



KS3 Curriculum: Computing

Y7	Knowledge	Tier 2 Vocabulary	Skills	Assessment
Autumn 1	<p>E-Safety Know how to stay safe online and to be responsible. Know where to seek help</p>	<ul style="list-style-type: none"> • Factors • Impact • Important • Technology • Report • Validity • Bullying • Trustworthy • Animation 	<ul style="list-style-type: none"> • Identify good and bad behaviour online • Use search engines effectively • How to know a trustworthy source • Use transitions, animations and slide master 	<p>Presentation How to use the Internet safely and where to seek help.</p>
Autumn 2	<p>Scratch Programming Use block programming to create a game using a range of programming techniques</p>	<ul style="list-style-type: none"> • Sequence • Selection • Operators • Script • Design • Programming • Evaluation 	<ul style="list-style-type: none"> • Understand how to use algorithms to plan a task • Use variables, assignment, iteration and loops • Design a platform game to meet the brief 	<p>Platform Game Plan, create and evaluate a scratch program to meet the brief.</p>
Spring 1	<p>Number Representation Know how 1s & 0s, text and sound are represented in binary How logic gates are used in computer systems</p>	<ul style="list-style-type: none"> • Binary • Convert • Logic • Decimal • Represent • System • Evaluation 	<ul style="list-style-type: none"> • Know how to calculate binary to denary and vice-versa • Understand AND, OR & NOT gates • Understand of how sound & images can be represented in binary 	<p>Questions Range of questions on converting from base 2 to base 10 and logic gates.</p>
Spring 2	<p>Micro:bits Textual based programming using Python with Micro:Bits.</p>	<ul style="list-style-type: none"> • Input • Process • Variable • Iteration • Selection • Looping 	<ul style="list-style-type: none"> • Program and use a Micro:Bit • Use textual based programming (Python) to create basic programs 	<p>Questions Topic based practical questions.</p>
Summer 1	<p>Computer Systems and Spreadsheets How to use spreadsheets to calculate the cost of a computer system</p>	<ul style="list-style-type: none"> • Hardware • Software • Spreadsheets • Formula • Cell • Input • Output 	<ul style="list-style-type: none"> • Use functions and formulas appropriately • Apply and use a range of data types with suitable validation • Create useful graphs and charts 	<p>Spreadsheet Create an automated spreadsheet for a computer system using a range of formulas, functions and techniques.</p>
Summer 2	<p>Creative Project Plan, create, collect and edit a range digital artefacts for a given audience</p>	<ul style="list-style-type: none"> • Layers • Document • Elements • Feature • Palette • Transparent 	<ul style="list-style-type: none"> • Use mood boards • Use photo editing software to create a range of images • Use layers, filters, colours to manipulate the images • Use a range of file types 	<p>Digital Artifact Create a digital advert to promote and target a specific market.</p>



KS3 Curriculum: Computing

8	Knowledge	Tier 2 Vocabulary	Skills	Assessment
Autumn 1	E-Safety Cyber Bullying Grooming Using technology safe Validating information	<ul style="list-style-type: none"> • Security • Technology • Audience • Validity • Bullying • Grooming • Privacy 	<ul style="list-style-type: none"> • Report concerns • Use technology responsibly • Privacy security threats • Evaluate work • Make appropriate design choices - target audience • Use DTP tools 	Desktop Publishing Create a multi page DTP project for E-Safety awareness.
Autumn 2	Python Gaming Introduction to Python & Turtle programming	<ul style="list-style-type: none"> • Sequence • Decompose • Selection • Operators • Design • Programming • Evaluation 	<ul style="list-style-type: none"> • Algorithms • Relational operators • Variables and assignment • Selection & Iteration • Break down complex problems into smaller parts to find a solution • Understand relational operators 	Practical assessment Range of questions on programming theory. Practical questions on coding.
Spring 1	Data Representation Boolean Logic using AND, OR & NOT in operations Using Hexadecimal numbers to represent Binary and denary	<ul style="list-style-type: none"> • Convert • Operation • Addition • Subtraction • Represent • Calculate • Relationship • Character • Electrical 	<ul style="list-style-type: none"> • Boolean logic, gates and truth tables • Denary/Binary/Hexadecimal conversions • Binary addition • ASCII notation & character sets • Understand logic gates and their relationship to electrical circuits 	Key Questions Range of questions based on the topic.
Spring 2	Interactive multimedia product Create a multimedia product using presentation software	<ul style="list-style-type: none"> • Analysis • Design • Client • Requirements • Interactive • Multimedia 	<ul style="list-style-type: none"> • Project planning • Reuse a combination of digital artifacts • Transitions & animations • Create storyboards • Evaluation 	Digital artifact Design, create & test a multimedia product..
Summer 1	Spreadsheets Set up and use a spreadsheet model	<ul style="list-style-type: none"> • Modelling • Validation • Suitability • Cell • Format 	<ul style="list-style-type: none"> • Validation • Formulas and functions • Filtering • Pivot chart • Protection • Conditional formatting 	Spreadsheet Create a spreadsheet with a range of formulas, functions, graphs and charts.
Summer 2	Creative Project Understand how to to HTML script to create a website.	<ul style="list-style-type: none"> • Planning • Evaluation • Style • Audience • Content • Presentation 	<ul style="list-style-type: none"> • Project planning • Reuse and combination of digital artifacts • Audience consideration • Web design and creation • Use a range of HTML tags • File formats 	Digital artefact Create a multipage website.



KS3 Curriculum: Computing

9	Knowledge	Tier 2 Vocabulary	Skills	Assessment
Autumn 1	E-Safety Cyberbullying Grooming Using technology safe Validating information Sexting Cybercrime	<ul style="list-style-type: none"> • Behaviour • Privacy • Responsible • Effectively • Appropriate • Trustworthy • Evaluation • Validation • Technology 	<ul style="list-style-type: none"> • Use technology safely and responsibly • Know how to report concerns • Use features of a word processor • Assess how trustworthy the data is • File management • Evaluate my work 	Word processing Create a booklet to educate on all aspects of E-Safety using a range of sources..
Autumn 2	Creating Movie Poster Design, create and evaluate digital artifact for a client	<ul style="list-style-type: none"> • Investigate • Analyse • Design • Assets • Justify • Evaluate 	<ul style="list-style-type: none"> • Planning • Image manipulation • Know file types • Legal and Ethical implication • Aware if target audience 	Digital Movie Poster Plan, design, create and evaluate a digital poster
Spring 1	Adventure Game Design, create and evaluate an adventure game in code	<ul style="list-style-type: none"> • Source • Structure • Evaluation • Relevant • Accurate • Sequence 	<ul style="list-style-type: none"> • Planning & designing • Creating • Evaluating • Functions • Selection (if statements) • Iteration • Variables 	Key Questions Range of questions based on programming Submit the adventure game
Spring 2	Comic Strip Plan, design and create a comic strip to meet a client brief	<ul style="list-style-type: none"> • Features • Character • Diagram • Visual • Sequential • Special 	<ul style="list-style-type: none"> • Planning & designing • Creating a storyboard • Evaluating • Layering • Sourcing assets • File management 	Create a Comic Strip Plan, design, create & test the comic strip
Summer 1	Databases Set up and use databases	<ul style="list-style-type: none"> • Query • Design • Relationship • Validate • Reports • Modify • Present • Export • Format 	<ul style="list-style-type: none"> • Use correct data types • Create tables, forms and reports • Interrogate data • Create a switchboard • Use and apply a range of validation methods 	Database questions Range of theory and practical questions on the topic
Summer 2	Creative Project Plan and create a website using HTML, CSS & JavaScript to meet a client brief	<ul style="list-style-type: none"> • Analyse • Interpret • Design • Assets • Justify • Evaluate • Annotate 	<ul style="list-style-type: none"> • Understanding a brief • Planning & designing • Creating • HTML tags • Apply style sheets (CSS) • Apply JavaScript to the website 	Database questions Range of theory and practical questions on the topic Submit webstie