



Computer Science, IT, Business and Digital Media Department

Long-term sequencing Year 8 KS3 IT

CURRICULUM INTENT: To develop further the mastery of common applications; to continue to develop student awareness of the impact of IT on society; to understand how technology relates to cultural and spiritual learning; to further develop and extend key computing topics such as networks and hardware leading towards knowledge and skills that will be required for GCSE Computer Science; to continue to learn and use basic logical and procedural computer languages and algorithms; and to take part in well-planned and sequenced lessons to support all learners' progress to meet the KS3 National Curriculum.

<p><u>HALF TERM 1: SPREADSHEETS</u> STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> • Introduction and Uses • Features • Formatting • Creating a model • Graphs & Charts <p>HOW THIS WILL BE ASSESSED: Baseline Test Assessment in LRW1 (HT2) Work (and homework) received and assessed electronically Low stakes quizzes</p>	<p><u>HALF TERM 2: DATABASES</u> STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> • Features of a Database • Tables • Queries/Reports • Functions and Formulae • Forms • Practical Assessment <p>HOW THIS WILL BE ASSESSED: Assessment in LRW2 (HT3) Work (and homework) received and assessed electronically Low stakes quizzes</p>	<p><u>HALF TERM 3: NETWORKS</u> STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> • Types of network • LANs and WANs • Connecting to networks • Types of connection • Network Hardware • Cloud computing <p>HOW THIS WILL BE ASSESSED: Assessment in LRW2 Work (and homework) received and assessed electronically Low stakes quizzes</p>
<p><u>HALF TERM 4: HOW COMPUTERS WORK</u> STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> • Computer architecture • The CPU, memory and storage • How the OS deals with hardware • Logic gates and logic circuits • AI and machine learning • Types of software <p>HOW THIS WILL BE ASSESSED: Assessment in LRW3 (HT4) Work (and homework) received and assessed electronically Low stakes quizzes</p>	<p><u>HALF TERM 5: HOW WE COMMUNICATE</u> STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> • The Internet vs WWW • Email and Communications • IP addresses and URLs • Working together • Collaborating in person and online <p>HOW THIS WILL BE ASSESSED: Assessment in LRW3 (HT4) Work (and homework) received and assessed electronically Low stakes quizzes</p>	<p><u>HALF TERM 6: COMPUTATIONAL THINKING</u> STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> • Decomposition: Breaking down a large problem into small, simple instructions. • Iteration: Spot patterns of repetition in sets of instructions. • Use abstraction to remove specific detail. • Creating flow charts. • Writing algorithms using pseudocode. <p>HOW THIS WILL BE ASSESSED: Assessment at end of term Work (and homework) received and assessed electronically Low stakes quizzes</p>

Home learning will consist of a combination of: Worksheets (written and online), SENECA, Key word learning from Knowledge Organisers