Curriculum overview
Computer Science

Key Stage 3

Year	Term 1	Term 2	Term 3
7	**Staying safe online – RSHE** *Strand 2 – digital literacy* Key learning: • File management (set up folder structure) • E safety • Social networking • Keeping data safe • Using e mail • Searching the web Outcome: Leaflet covering concepts learnt	**Bitmap and Vector Graphics** *Strand 1 – information technology* Key learning: • Bitmap graphics • Vector graphics • Colour depth and resolution • Conveying meaning • Text, effects and enhancements Outcome: Film poster	**Introduction to Programming** *Strand 3 – computer science* Key learning: • Problem decomposition • Sequence • Selection • Iteration • Debugging and testing • Differences between basic Scratch and Python Outcome: Calculator in Scratch
8	**Understanding Computers** *Strand 1 – information technology* Key learning: • Hardware • The CPU • Binary • Binary addition • Storage devices • New technologies Outcome: Infographic	**HTML and Website Development** *Strands 1 & 2 – information technology & digital literacy* Key learning: • Use of HTML • Use of CSS • Navigation • Master pages • Page design • Images Outcome: Multi-page website on staying safe online	**Introduction to Python** *Strand 3 – computer science* Key learning: • Pseudo code and algorithms • Data types • Variables and operators • Sequence • Selection • Iteration • Syntax and logic errors Outcome: TBC

9	**Computer Crime and Cyber Security – RSHE** *Strand 2 – digital literacy* Key learning: • Social networking dangers • Identity protection • Phishing • Copyright law & plagiarism • GDPR • Health and safety Outcome: quiz on cyber crime or poster **Advanced Python** *Strand 3 – computer science* Key learning: • Iteration • Functions/procedures • Using arrays • Modular programming Outcome: Text-based adventure game	**Animation** *Strand 1 – information technology* Key learning: • Evaluating animations • Stop frame techniques • Keyframe techniques • Storyboarding • Making an animation • Testing and evaluation Outcome: Animated fairy tale **Web Design** *Strand 1 – information technology* Key learning: • Master pages • Navigation • Advanced techniques including importing animation • Following software lifecycle Outcome: Multipage website incorporating animation from previous unit	**Scratch game making** *Strand 3 – computer science* Key learning: • Variables • Sequence • Selection • Iteration • Debugging Outcome: a unique game **Graphics** *Strand 1 – information technology* Key learning: • Follow software lifecycle • Use of photo manipulation tools • Creating a product for a client • Review and reflect Outcome: DVD cover or similar