# St Mary's Computing - Long Term Plan

| Year | Autumn Term 1 Unit | Autumn Term 2 Unit | Spring Term 1 Unit | Spring Term 2 Unit | Summer Term 1 Unit | Summer Term 2 Unit |
|---|---|---|---|---|---|---|
| 5 | **Systems and searching** Recognising IT systems in the world and how some can enable searching on the internet. | **Video production** Planning, capturing, and editing video to produce a short film | **Selection in physical computing** Exploring conditions and selection using a programmable microcontroller. | **Flat-file databases** Using a database to order data and create charts to answer questions. | **Introduction to vector graphics** Creating images in a drawing program by using layers and groups of objects. | **Selection in quizzes** Exploring selection in programming to design and code an interactive quiz. |
| 6 | **Communication and collaboration** Exploring how data is transferred by working collaboratively online | **Webpage creation** Designing and creating webpages, giving consideration to copyright, aesthetics and navigation. | **Variables in games** Exploring variables when designing and coding a game. | **Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data. | **3D modelling** Planning, developing, and evaluation 3D computer models of physical objects. | **Sensing movement** Designing and coding a project that captures inputs from physical devices. |
| 7 | **Clear messaging in digital media** Combining the use of digital tools and online collaboration to produce media **3.8, 3.9** | | **Programming essentials in Scratch** Applying the programming constructs of sequence, selection and iteration in Scratch. Using subroutines to decompose a problem that incorporates lists in Scratch. **3.2, 3.3, 3.4, 3.8** | | **Modelling data using spreadsheets** Sorting and filtering data using formulas and functions in spreadsheet software. **3.1, 3.7** | |
| 8 | **Media – Vector graphics** Creating vector graphics through objects, layering, and path manipulation. **3.7, 3.8** | | **Mobile app development** Using event-driven programming to create an online gaming app. **3.1, 3.2, 3.3, 3.8** | | **Layers of computing systems** Exploring the fundamental elements that make up a computer system **3.4, 3.5, 3.6** | |