**St Minver 2014 National Curriculum long term overview**

**Subject: Computing**

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| **Aims** | The national curriculum for computing aims to ensure that all pupils: can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems are responsible, competent, confident and creative users of information and communication technology. |
| **Subject Content** | **Key stage 1**Pupils should be taught to: understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content recognise common uses of information technology beyond school use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.**Key stage 2**Pupils should be taught to: design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact**.** |

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| **Year** | **Topics covered/progression** |
| **1** | **Word processing - word****Coding– Espresso****Ipad Various topic related Apps** |
| **2** | **Word processing - word****Coding – Espresso****Ipad Various topic related Apps** |
| **3** | **\*Wordprocessing – Word/Publisher cc** **- Combine texts/graphics****\* Data Base – Black cat/ Textease cc****\* Email – local schools****\* Backdrop TVcc****\* Manipulating Sound****\* Simulations****\* Inter NET research cc****\* Esafety****\* Programming -Espresso**  |
| **4** | **\*Wordprocessing – Word/Publisher cc** **- Combine texts/graphics****-Text boxes****-Copy and paste****- Text wrap****\* Imagine Logo****\*Branching databases cc – Textease****\* Backdrop TVcc****\* Repeating patterns – Revelation Art****- Print screen****- Croping****\* Inter NET research cc****\* Esafety****\* Programming -Espresso**  |
| **5** | **\*Wordprocessing – Word/Publisher cc** **- Combine texts/graphics****-Text boxes****-Copy and paste****- Text wrap****- Keyboard short cuts****- Insert symbols****- Alter box sizes****\*Powerpoint cc****\*Excel cc****\*Moviemaker cc****\*Data logging – log it live cc****\* Backdrop TVcc****\* Inter NET research cc****\* Esafety****\* Programming -Espresso**  |
| **6** | **\*Wordprocessing – Word/Publisher cc** **- Combine texts/graphics****-Text boxes****- resizing****-Copy and paste****- Text wrap****- Keyboard short cuts****- Insert symbols****- Alter box sizes****\* Backdrop TVcc****\* Powerpoint cc****\* Photostory 3 cc****\* Moviemaker cc****\* Inter NET research cc****\* Esafety****\* Programming -Espresso**  |