**Long Term Sequence of Computing EYFS - Year 6**

| **BIG IDEAS - SUBSTANTIVE CONCEPTS** | | | | | |
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| **Computer Science** | | **Information Technology** | | **Digital Literacy** | |

| **DISCIPLINARY KNOWLEDGE** | | | |
| --- | --- | --- | --- |
| Computing systems and networks | Programing | Data and information | Creating Media |

| **Computing Overview** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **EYFS** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
|  | Technology around us  Digital painting  Moving a robot  Grouping data  Digital writing  Programming animations | Information technology around us  Digital photography  Robot algorithms  Pictograms  Digital music  Programming quizzes | Connecting computers  Stop-frame animation  Sequencing sounds  Branching databases  Desktop publishing  Events and actions in programs | The internet  Audio production  Repetition in shapes  Data logging  Photo editing  Repetition in games | Systems and searching  Video production  Selection in physical computing  Flat-file databases  Vector graphics  Selection in quizzes | Communication and collaboration  Webpage creation  Variables in games  Introduction to spreadsheets  3D modelling  Sensing movement |



| **NATIONAL CURRICULUM PROGRAMMES OF STUDY** | | | | | | |
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| **EYFS** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
|  | **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 | | **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. | | | |