**Computing Curriculum**

**Great Linford Primary School**



The Computing programme of study at Great Linford Primary School is structured around The National Curriculum (Published in 2013). The intent of the curriculum is to equip students with the foundational skills, knowledge and understanding of computing that they will need for the rest of their lives. Computing details how computers and computer systems work. Through our computing curriculum pupils will gain an understanding of computational systems of all kinds, whether or not they include computers.

Ensuring our pupils are able to think computationally will create learners that are better able to conceptualise, understand and use computer-based technology, and so are better prepared for today’s world and the future.

**Curriculum Progression: Computing Skills**

**Computer Science**

| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| --- | --- | --- | --- | --- | --- |
| I can understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions  I can create a simple one step programme for a bee bot | I Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.  I will create and debug simple programs.  I can use logical reasoning to predict the behaviour of simple programs | I can 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.  I can design, write and debug programs that accomplish specific goals. | I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  I will use sequence, selection and repetition in programs; work with variables and various forms of input and output.  I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. | I can turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts.  I am able to test and debug my program and can use logical methods to identify the approximate cause of any bug.  I can translate algorithms that include sequence, selection and repetition into code  I can think about a codes structure in terms of the ability to debug and interpret the code later | I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.  I can use sequence, selection and repetition in programs; work with variables and various forms of input and output.  I can logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. |

**Information Technology**

| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| --- | --- | --- | --- | --- | --- |
| I can use technology purposefully to create and save a document.  I can identify parts of a computer.  I can understand what objects are computers and what are not. | I can use technology purposefully to create, organise, store, manipulate and retrieve digital content. | I can use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  I can select, use and combine a variety of software 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. | I can use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  I can 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. | I can search with greater complexity for digital content when using a search engine.  I am able to explain in some detail how credible a webpage is and the information it contains.  I can collaboratively create content and solutions using digital features within software such as collaborative mode  I am able to use several ways of sharing digital content | I can apply filters when searching for digital content.  I can explain in detail how credible a webpage is and the information it contains.  I can use a range of digital content sources and are able to rate them in terms of content quality and accuracy.  I can make clear connections to the audience when designing and creating digital content. |

**Digital Literacy**

| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| --- | --- | --- | --- | --- | --- |
| I can 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  I can recognise common uses of information technology beyond school. | I can 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.  I can consider when using digital technology leads to improvement and when it is not appropriate. | I will demonstrate the importance of having a secure password and not sharing this with anyone else.  I can explain the negative implications of failure to keep passwords safe and secure.  I understand the importance of staying safe and the importance of their conduct when using familiar communication tools | I can explore key concepts relating to online safety using concept mapping.  I will help others to understand the importance of online safety.  I know a range of ways of reporting inappropriate content and contact. | I have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services.  I can implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others. | I can demonstrate the safe and respectful use of a range of different technologies.  I can identify more discreet inappropriate behaviours through developing critical thinking.  I recognise the value in preserving their privacy when online for their own and other people’s safety. |