**Stoke Hill Federation Computing Curriculum by Terms 2019 -**

**To be taught in every unit:** Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

**Year 3 Spring Term**

*Unit 3.2 ‘We are Bug Fixers’*

|  |  |
| --- | --- |
| **Vocabulary** | **Skills** |
| **Bug –** a mistake in a computer program**debug** - [Debugging](http://www.theschoolrun.com/what-is-debugging) is checking the code in a computer program to ensure it works, and changing it if it doesn’t.**Programme** - A [computer program](http://www.theschoolrun.com/what-is-a-program) is a collection of instructions or algorithms designed to simplify processes**Algorithm** - An [algorithm](http://www.theschoolrun.com/what-is-an-algorithm) is a set of instructions that we complete in order to achieve a task.**Script** - part of a program | Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programmes |

**Year 3 Summer Term**

*Unit 3.6 ‘We are Opinion Pollsters’*

|  |  |
| --- | --- |
| **Vocabulary** | **Skills** |
| **Data** - [Data](http://www.theschoolrun.com/data-handling) is Information**Survey -** Finding out information from a group of people**Graph –** A mathematical diagram that shows the relationship between two or more sets of data**Chart –** A diagram, picture or graph which is intended to make information easier to understand**Research –** Studying something and trying to discover facts about it | Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programmes, systems and content that accomplish given goals, including analysing, evaluating and presenting data and information |

**To be taught in every unit:** Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

**Year 4 Autumn Term**

*Unit 4.1 ‘We Are Software Developers - Develop a Simple Educational Game in Scratch’*

|  |  |
| --- | --- |
| **Vocabulary** | **Skills** |
| **Input** - Information that goes into the computer.**Output** - Information that comes out of the computer.**Repetition** - Sometimes called iteration, when part of a program repeats itself.**Variable -** A [variable](http://www.theschoolrun.com/what-is-a-variable-in-computing) is a piece of information in a program that we want to store, but is able to change.**Interface** - The area in which systems affect each other or have links with each other. | Use sequence, selection and repetition in programmes; work out how some simple algorithms work and detect and correct errors in algorithms and programmesDesign, write and debug programmes that accomplish specific goals, including controlling or simulating systems; solve problems by decomposing them into smaller parts |

**Year 4 Summer Term**

*Unit 4.3 ‘We Are Musicians’. Use Garage Band to compose a piece of digital music.*

|  |  |
| --- | --- |
| **Vocabulary** | **Skills** |
| **Software** - [Software](http://www.theschoolrun.com/what-are-hardware-software-and-operating-systems) is created using a [programming language](http://www.theschoolrun.com/what-is-a-programming-language) and is the non-physical part of a computer.**Sample –** a small amount that shows you what something is like**Digital –** a system or record that transmit information in the form of thousands of very small signals**Audio –** reproducing sound**Copyright –** illegal to reproduce without permission | Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programmes, systems and content that accomplish given goals, including analysing, evaluating and presenting data and information |

**To be taught in every unit:** Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

**Year 5 Autumn Term**

*Unit 5.4 ‘We Are Web Developers’. Children collaborate to create a web page using Google Sites*

|  |  |
| --- | --- |
| **Vocabulary** | **Skills** |
| **Network** - Computers linked within a building or area.**web page** - a set of data or information which is designed to be viewed as part of a website.**Hyperlink –** a link to another document, shown in words with a line under them.**search engine –** a program that searches for documents containing certain words**rank order –** a statistic that orders data | Understand computer networks including the internet; how they can provide multiple services such as the world wide web; and the opportunities they provide for communication and collaborationSelect, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programmes, systems and content that accomplish given goals, including analysing, evaluating and presenting data and information |

**Year 5 Spring Term**

*Unit 5.2 ‘We Are Cryptographers’*

|  |  |
| --- | --- |
| **Vocabulary** | **Skills** |
| **Encrypt –** a document written in a special code that only certain people can read**Decrypt –** to decode without knowledge of its key**binary code -** Binary is the language computers use. It is a series of 1s and 0s and is also used in mathematics.**Cipher -** a secret system of writing that you can use to send messages | Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact |

**To be taught in every unit:** Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

**Year 6 Autumn Term**

*Write code to control a micro:bit*

|  |  |
| --- | --- |
| **Vocabulary** | **Skills** |
| **Procedure -** A [procedure/function](http://www.theschoolrun.com/what-are-procedures-and-functions) is used in programming to break a complex task down into simple steps or sections.**hex file –** a source file used by logic devices such as microcontrollers in remote controls or office machines**Code –** information and commands put in to a programme**micro:bit –** open sourced hardware embedded in the computer system.**Syntax –** words put together to make sentences | Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programmesUse sequence, selection and repetition in programmes; work out how some simple algorithms work and detect and correct errors in algorithms and programmesDesign, write and debug programmes that accomplish specific goals, including controlling or simulating systems; solve problems by decomposing them into smaller parts |

**Year 6 Summer Term**

*Unit 6.3 ‘We Are Advertisers’. Making an advert using iMovie*

|  |  |
| --- | --- |
| **Vocabulary** | **Skills** |
| **Footage –** part of a film that shows the event**rough cut –** edited version of a film with the scenes in sequence**story board –** a set of pictures which shows what will happen in something such as a film or advert being planned**final cut –** final edited version of a film | Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programmes, systems and content that accomplish given goals, including analysing, evaluating and presenting data and information |