**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’*

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| **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 which tell a computer what to do.  **Algorithm** - An [algorithm](http://www.theschoolrun.com/what-is-an-algorithm) is a set of rules or instructions that a computer follows 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’*

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| **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 |

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**Year 4 Autumn Term**

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

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| **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 can change depending on how the programme is used.  **Interface** – A connection between computers, or between a person and a computer. | Use sequence, selection and repetition in programmes; work out how some simple algorithms work and detect and correct errors in algorithms and programmes  Design, 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.*

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| **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 –** taking a piece of music and adding it into a different song.  **Digital –** Digital music is recording or converting music on a computer.  **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 |

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**Year 5 Autumn Term**

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

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| **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 web page, shown in words with a line under them.  **search engine –** a program that searches for web pages containing certain words  **rank order –** The order of results on a search engine. | 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 collaboration  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 |

**Year 5 Spring Term**

*Unit 5.2 ‘We Are Cryptographers’*

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| **Vocabulary** | **Skills** |
| **Encrypt –** Convert information into a secret code.  **Decrypt –** to turn the encrypted code back into the original information.  **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 |

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**Year 6 Autumn Term**

*Write code to control a micro:bit*

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| **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 –** The type of file used to send instructions to a micro:bit  **Code –** information and commands put in to a programme  **micro:bit –** A small computer that can be programmed to perform basic functions.  **Syntax –** The specific words needed to write computer code in a programming language. | Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programmes  Use sequence, selection and repetition in programmes; work out how some simple algorithms work and detect and correct errors in algorithms and programmes  Design, 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*

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| **Vocabulary** | **Skills** |
| **Footage –** All of the video that you have recorded  **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 |