|  |  |
| --- | --- |
| Squirrels Class Medium Term Planning for **Computing Summer Term 2024** | |
| **Focus: Coding** | Children will access technology as part of the whole curriculum and continuous provision. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson 1 - Link it**  **What do we know about coding and computers?**  Exploration of beebots - what do they do? | **Lesson 2 - Learn it**  **What are directions?**  Exploring beebots - 1 part direction. | **Lesson 3 - Learn it**  **What is an algorithm?**  Exploring beebots - more than 1 part directions. | **Lesson 4 - Check it**  **Following algoritms**  Follow an algorithm using symbols. | **Lesson 5 - Show It**  **Creating an algorithm**  Create an algorithm using symbols. | **Lesson 6 - Know it**  **Debugging**  Spotting mistakes in algorithms - how can I fix/debug the problem? |

|  |  |
| --- | --- |
| Substantive Knowledge (Content) | Disciplinary Knowledge (Skills) |
| KS1 Coding  Children begin to understand their influence on technology by developing their programming skills to determine output. They begin to understand that an algorithm is a series of steps for solving problems and a code is a series of steps that machines can execute. They begin to explore debugging, predicting when codes may not work and changing them.  Children understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. They create, debug and use logical reasoning to predict the behaviour of simple programs.  **Children can:**  a give commands one at a time to control direction and movement, including straight, forwards, backwards, turn;  b control the nature of events: repeat, loops, single events and add and delete features;  c give a set of instructions to follow and predict what will happen;  d improve/change their sequence of commands by debugging;  e use key vocabulary to demonstrate knowledge and understanding in this strand: algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink. | Reception   * Recognise that a range of technology is used in homes and in schools. * Use a simple application on a computer or mobile device. * Use computing devices to interact with age-appropriate applications.   KS1   * Use animation software to create a short film, including music and illustrations. * Use technology purposefully to create, organise, store, manipulate and retrieve digital content. * Demonstrate the ability to use a range of computer programmes to depict the key events of world war one in interesting and creative ways. |

Progression of Learning

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ‘Link It’ | ‘Learn It’ | ‘Check It’ | ‘Show It’ | ‘Know It’ |
| * Exploration of familiar technology | Using buttons to create algorithms and cause/effect | Following instructions | Following longer sequences | * Checking/debugging |