

Year 5 Unit Medium Term – Computing – Programming

N.C POS

- 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
- 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

Strand/s of Computing in this Unit: Computer Science & Digital Literacy

Concept: cause and effect, change, information, communication, technology, patterns, invention

Key Vocabulary: algorithm, decomposition, sequence, input, selection, simple program

Prior Learning: instructions as algorithms, instructional language, understanding ‘debug’ as correcting mistakes in programming, duplicate function, repeat and loop functions, an understanding of what variables are

Core Knowledge- non-negotiable- specific knowledge must be identified here

- To know that algorithms have to be accurate in order to work properly.
- To know that software relies on codes to run and that a range of different coding languages exists.
- Can use visual programming software to plan, design and create basic game software for a target audience.
- Can test and evaluate my piece of software with the target audience.
- Use variables, conditional statements, procedures and repeat commands to improve programs and games.

Wider Influences

- **Games design over time**
- **Graphics designers**
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Enduring Understanding

- **To have the ability to spot errors in an algorithm and debug it.**
- **Use a range of tools to improve programs and games.**