We aim to equip pupils to use computational thinking and creativity to understand and change the world; to become digitally literate –using, and expressing themselves and developing their ideas through, information and communication technology. They will build on this knowledge and understanding, becoming equipped to use information technology to create programs, systems and a range of content– at a level suitable for the future workplace and as active participants in a digital world

Inspiring and enabling our school community to live life to the full

YEAR 4

Subject: Computing
Unit: Programming – Repetition in Games

Characteristics of an Effective Learner

Courage
Commitment
Collaboration
Creativity
Curiosity

Prior Learning:	**Key Vocabulary taught in this unit:**
Key concepts from Education for a connected World: Year 1 Introduction to programming Year 2 Programming Robot algorithms Year 3 Programming sequences in music Year 4 Repetition in shapes	Block, repeat, forever, infinite loop, count-controlled loop, costume, repetition, animate, event block, duplicate, modify, design, sprite, algorithm , debug, refine, evaluate

Intent: What do we want the children to know, be able to do by the time they complete this unit?

- **Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts**
  Design and create a program that uses repetition
- **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output**
  Use loops to create shapes. To modify loops to produce a given outcome
- **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs**
  To recognise that programming language enables more than one process to run at once. Modify and infinite loop program
- **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**
  Using Scratch program language to program written algorithms to complete a design

Impact / Outcome:
What will the final product / result be?
Pupils will explore the concept of repetition in Scratch. Their final project is to design and create a programme which uses repetition, applying states of programming design throughout.

P4C Inquiry (where appropriate)
N/A