

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



YEAR 6

Subject: Computing
Unit: Programming A – Variables in games

Characteristics of an Effective Learner

Courage
Commitment
Collaboration
Creativity
Curiosity

Prior Learning:

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 Programming – repetition in shape

Year 5 – Programming Selection in Physical Computing

Key Vocabulary taught in this unit:

Variable, change, name, value, set, design, event, algorithm, code, task, artwork, program, project, test, debug, improve, evaluate, share

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 a project that builds on previous experience; use design to create a project, evaluate and improve game
- **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output**
Define a variable as something changeable; explain why a variable is used;
- **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs**
Choose how to improve a game by using variables
- **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 to design a program; choose artwork to include

Impact / Outcome:

What will the final product / result be?

Pupils will use Scratch to simulation of a scoreboard – experimenting with variables to improve their game

P4C Inquiry (where appropriate)

N/A