

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



YEAR 2

Subject: Computing
Unit: Programming – Robot Algorithms

Characteristics of an Effective Learner

Courage
Commitment
Collaboration
Creativity
Curiosity

Prior Learning:

Key concepts from Education for a connected World: Privacy and security
Year 1 Programming a robot and introduction to animation

Key Vocabulary taught in this unit:

Instructions, sequence, clear, unambiguous, algorithms, program, order, commands, prediction, artwork, design, route, mat, debugging

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

- **Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions.**
Children will program their own robot to move on a mat.
- **Create and debug simple programs**
Children will identify where errors have been made in programming.
- **Use logical reasoning to predict the behaviour of simple programs**
Children will use errors they have identified to improve their program and predict the impact.
- **Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.**

Impact / Outcome:

What will the final product / result be?

Children's knowledge and understanding of algorithms and how they are implemented as programs on digital devices will increase. They will spend time looking at how the order of command affects outcomes. They will trace programs and predict outcomes. They will design algorithms to move their own robot, along with debugging any errors.

P4C Inquiry (where appropriate)

N/A