

Year 6—Programming A

Variables in games

Previous learning

Year 3 Programming – Sequencing sounds and events and actions in programmes

I know how to create a sequence in a block-based sequence.

I know how to use programming language to make music.

I know how to write algorithms and programs that use a range of events.

I know how to use a range of events to trigger sequences of actions.

Year 4 Programming – Repetition in shapes and repetition in games

I know how to use text-based programming language.

I know how to use count-controlled loops when drawing shapes.

I know how to use block-based programming language to explore count-controlled infinite loops.

I know how to use infinite loops to create a game.

Year 6 Programming – Selection in physical computing and selection in quizzes

I know how to use conditions and selection.

I know how to use a programmable microcontroller.

I know how to use selection to design and code an interactive quiz.

Know that devices can be controlled through direct instructions or from sensing equipment.

Know that control programs can be written to respond to circumstances flexibly.

Know how to select, use and combine a variety of software on a range of devices to design and create a range of programs, systems and content.

Key information

Programming is used all of the time in our lives!

Phones are programmed, so are televisions and lots of other pieces of technology.

When technology uses programming it is to make sure that it does exactly what it is meant to when you try to manipulate it. For example when you use the remote for the television, it is programmed to follow exactly what the remote tells it to do!

Why is programming useful?

Curriculum links

NC links

- Design, write and debug programs that accomplish specific goals, including controlling or simulating systems.
- Use sequence, selection and repetition in programs.

Wonder

Enjoyment

Love of Language

Belonging

Empathy

Courage

Kindness

Key Vocabulary

Programming	The process or activity of writing computer programs.
Algorithm	A set of rules to be followed in calculations by a computer.
Variables	Something that is able to be changed or adapted.
Debug	Identify and remove errors from computer hardware or software.
Input	Data that is entered into or received by a computer.
Output	Information that displays on a screen or prints in paper as a result of a program.
Command	An instruction to a computer program to perform a specific task.
Sequence	A particular order in which related things follow each other.

