

Year 8 Computer Science

Introduction to programming techniques using Microsoft SmallBasic

- Learn the user interface for Microsoft SmallBasic.
- Understand what statements, properties and operations are and how they are used.
- Learn how the different types of variables are used in programming and how they are named.

Programming loop and condition statements

- Understand how to use Boolean operators in programming.
- Learn how to program using branches for decisions and what sub routines are.
- Use sub routines to create programming code which allows ease of use and reusability of code.
- Be able to carry out instructions based on whether one or more logical conditions are true.
- Understand how to use different loops to repeat instructions.

Programming graphics

- Learn how to use the turtle graphic in programming.
- Manipulate the turtle graphic by using variables, loops and conditions to create different types of graphics.
- Explore the different shapes that can be created and used in SmallBasic.
- Understand how to create patterns and shapes using loops.
- Understand how to program media objects which include sounds and images using SmallBasic.

Programming sort algorithms

- Learn how respond to events in programming.
- Learn how to use the Maths object in SmallBasic.
- Understand how to debug code.

Advice to students for independent study

- Research key words to understand how they are used in programming.
- Students should familiarise themselves with the concepts of SmallBasic outside of lessons to help reinforce programming techniques (Microsoft SmallBasic is a free program offered by Microsoft and installable to most Windows operating systems).