iProgram: iLogic Level 1

Course Evaluation Criteria

Y3: We would expect all children in Y3 to attain statements 1-7. If any of statements 8-10 are attained, those pupils are exceeding expectations.

1. Pupils can define what a computer is.
2. Pupils can explain what an algorithm is and write their own.
3. Pupils can explain what binary is.
4. Pupils know why you should shorten algorithms.
5. Pupils know that to become a programmer, you must be good at solving problems.
6. Pupils know what Computer Science is.
7. Pupils understand how repeats work and can use them in their code.
8. Pupils understand that conditionals are needed to make something work.
9. Pupils know that variables change numbers in a code while the program is running.
10. Pupils can test, identify and fix errors in their code.

Course Overview

Course overview: Pupils will use games to learn key coding skills. They will learn how to use the coding language 'Blockly' to introduce key programming elements such as functions, loops, conditionals and variables. This will progress into using code to create 'Spirograph' style artwork and creating a modern version of an Etch-A-Sketch.

Learning Outcome for the course: To learn what algorithms are and use them to code a variety of programs. They will know what functions are and that computer science is the art of blending human ideas with digital tools.

Course Overview

Tynker

Binary

Hopsotch

Sphero Edu

Lightbot

Hopscotch

This is the character that that the code is related to.

This is the conditional, it tells the computer when to complete the algorithm.

This is a repeat. It tells the computer how many times to repeat the code below.

Draw a trail tells the computer to draw a line and in what colour and thickness.

These are movement instructions.

Vocabulary Bank

Computer Science	*Mixing human ideas with digital tools.*
Algorithm	*A set of instructions for a computer.*
Conditional	*An 'If' or 'When' statement in our code.*
Variable	*Part of a code that can change as a program is being run.*
Binary	*The language computers use.*
Programming	*When we tell a computer an instruction to complete.*
Blockly	*A visual coding language.*
Computer Scientist	*Someone who uses coding to create computer programs.*