

iProgram: iDebug Level 3

Course Evaluation Criteria

Y5: We would expect all children in Y5 to attain statements 1-7. If any of statements 8-10 are attained, those pupils are exceeding expectations.

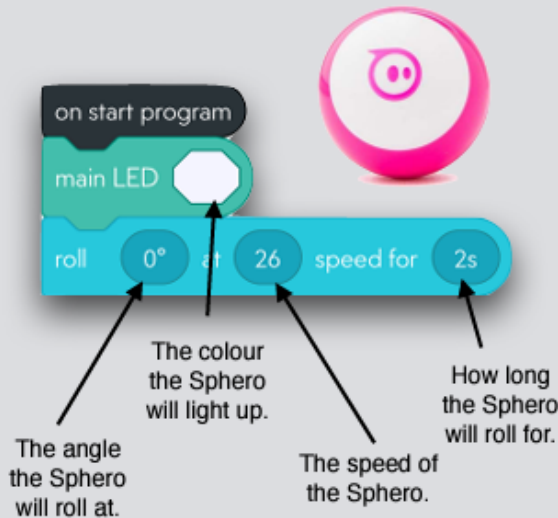
1. Pupils can create basic shapes using Blockly on Hopscotch.
2. Pupils understand that programs can have issues called bugs.
3. Pupils know that debugging is removing the bugs and therefore fixing algorithms.
4. Pupils can debug three out of five of the provided programs.
5. Pupils understand conditionals and that they are needed to create different types of controls to create games.
6. Pupils can debug the Sphero code and run the program successfully.
7. Pupils know that a variable allows a number to change while a program is running.
8. Pupils can create controls for a main character in an Endless Runner type game.
9. Pupils can debug all five of the provided programs.
10. Pupils can create a complex version of an Endless Runner game with lives, scores and more features.

Course Overview

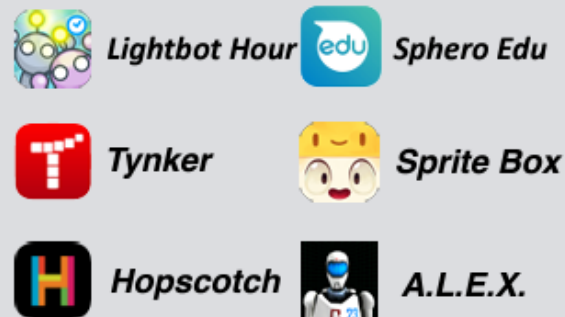
Course overview: Pupils will need to understand how programs work. They will create shapes to learn the basics of programming then move onto fixing or 'debugging' existing computer programs, progressing with their programming knowledge and then developing their own arcade games using many functions that they will learn about during this course.

Learning Outcome for the course: Pupils will know how to effectively debug their own work, how to spot errors in the code and have enough knowledge to know how to change it. They will also have an understanding of real-world programming solutions.

Sphero



Apps Used



Vocabulary Bank

Algorithm *A set of instructions or functions for a computer.*

Conditional *An 'If' or 'When' statement in our code.*

Variable *A number that changes as the program runs.*

Debug *Finding mistakes in code and fixing them.*

Branch *A copy of code-line so we can see completed and uncompleted code to help people work together*

Real-World Programming *Programming for real-world objects or programs, such as traffic lights*