

Programming Progression

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • I can press buttons to make a floor robot move • I can program a floor robot to move to a specific space e.g. Beebots • I can find an incorrect instruction in a program • I can understand programs run in an order (from start to finish) • I can sequence a set of instructions • I can predict a change when I change part of my program • I can control an on-screen character using simple directions or arrows 	<ul style="list-style-type: none"> • I can explain that users can write their own programs • I can explain that computers only do what someone has told them to • I can create a simple program • I can run, check and change programs. • I can repeat a section of a program 	<ul style="list-style-type: none"> • I can understand that a computer program runs sequentially • I can discuss what a program does based on its code • I can break down a problem into its smaller steps • I can plan what needs to be written for each stage • I can write a simple computer program containing a loop to repeat an instruction • I can debug a simple program after testing it 	<ul style="list-style-type: none"> • I can understand that a computer program runs sequentially • I can discuss what a program does based on its code • I can break down a problem into its smaller steps • I can plan what needs to be written for each stage • I can write a computer program containing a loop, conditionals and variables • I can debug a program after testing it 	<ul style="list-style-type: none"> • I can break down a problem into its smaller steps • I can plan what needs to be written for each stage • I can write a computer program with several steps in order to achieve a goal • I can debug a program after testing it • I can use a variable and relational operators within a loop to govern termination. 	<ul style="list-style-type: none"> • I can plan what needs to be written for each stage • I can write a computer program with several steps in order to achieve a goal • I can debug a program after testing it • I can design solutions by decomposing a problem and creating a sub-solution for each of these parts • I know that different solutions exist for the same problem. • I know the difference between, and I can appropriately use, 'if' and 'if, then and else' statements.

National Curriculum Coverage

KS1

- Understand that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs

KS2

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

