



What should I already know about Grouping Data?

- How to give instructions
- Some toys are small computers
- We can give instructions to a computer and it will follow them

Unit Overview – What I will be able to do

- Explore early programming concepts
- Explore using individual commands, both with other learners and as part of a computer program
- Identify what each floor robot command does and use that knowledge to start predicting the outcome of programs
- Explore the early stages of program design through the introduction of algorithms

What will I know by the end of the unit?

- Predict the outcome of a command on a device
- Match a command to an outcome
- Run a command on a device
- Follow an instruction
- Recall words that can be acted out
- Give directions
- Compare forwards and backwards movements
- Start a sequence from the same place
- Predict the outcome of a sequence involving forwards and backwards commands
- Compare left and right turns
- Experiment with turn and move commands to move a robot
- Predict the outcome of a sequence involving up to four commands
- Explain what my program should do
- Choose the order of commands in a sequence
- Debug my program
- Identify several possible solutions
- Plan two programs
- Use two different programs to get to the same place

Values

Clear communication	Take part in class discussions explaining reasoning clearly Explain how to improve your instructions
Enthusiastic with a can do attitude	Be optimistic about your success in programming a robot Be resilient when things become difficult
Take responsibility both personally and collectively	Support others as required to improve Share ideas as requested Be focused on following and giving instruction.
Are reflective	Think about what went well and what didn't. Think about how to improve. Think about how you can use the lessons you learnt here, in other areas.

Technical vocabulary

Command	an instruction or signal causing a computer to perform one of its basic functions
Predict	To say or estimate that something will happen
Outcome	The way a thing turns out
Device	A thing made for a particular purpose (beebot)
Robot	A machine capable of carrying out a series of actions
Instruction	A code which defines and carries out an operation
Sequence	An order where things follow one another
Program	A series of instructions to control a device



National Curriculum Objectives

Computing

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Recognise common uses of information technology beyond school