

Programming—Moving a Robot

Construction

Prior Knowledge

The children have learnt about digital printing and writing. They recognise that a range of technology is used in places such as homes and schools. They can select and use technology for particular purposes. They give and follow instructions daily and have experience of playing with floor robots.



My Component Knowledge:

Lesson 1: I can explain what a given command will do.

Lesson 2: I can follow an instruction and give simple directions.

Lesson 3: I can combine forwards and backwards commands to make a sequence.

Lesson 4: I can combine four direction commands to make sequences and predict the outcome of a simple sequence.

Lesson 5: I can plan a simple program, program a robot to do it and begin to debug my program.

Lesson 6: I can find more than one solution to a problem.

My Composite Knowledge:

I know how to write short algorithms and programs for a floor robot and predict program outcomes.

My Powerful Knowledge:

I know that instructions must be precise and unambiguous. I can create and debug simple programs and use logical reasoning to make predictions.

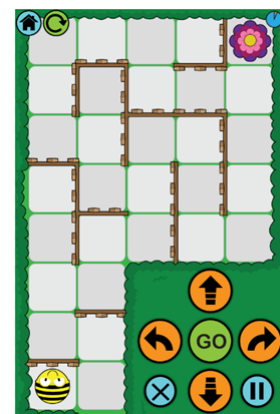
Key Vocabulary

Tier 1: forwards, backwards, turn, clear, go, order, plan

Tier 2: route, commands, program, robot, Bee-Bot, sequence, instructions,

Tier 3: debugging, solution, algorithm

What could
you change
in your
program?



Does your
program
work?

What is an algorithm?



How do you program a
robot?