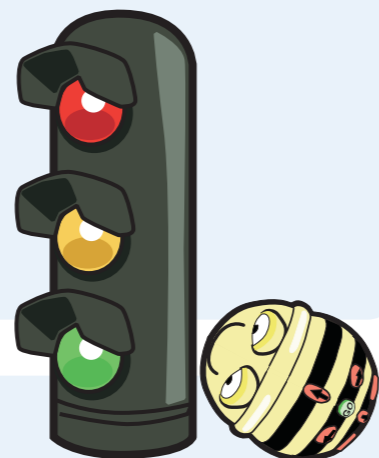


Control

Levelled Examples

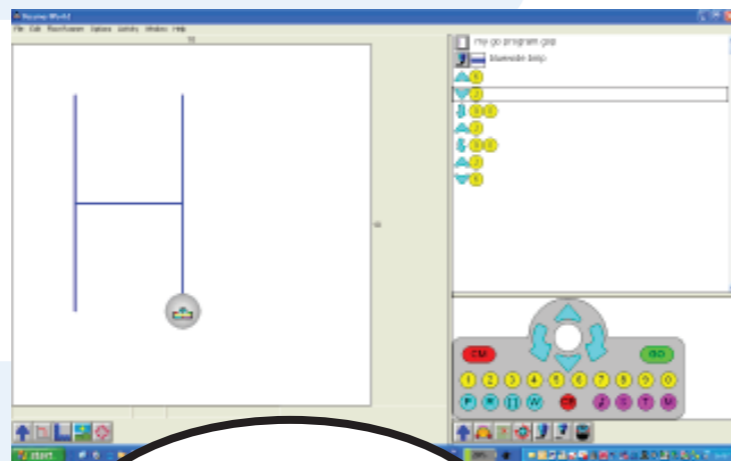


Context:

Children had previously explored using a floor robot, e.g. Roamer to move forwards, backwards and make turns. They had explored recording sequences using dry wipe boards.

What the children did:

Children were asked to use Roamer World to write letters of the alphabet on screen. They used forward, back and turns of 90 and 180 degrees. More able children explored creating other letters of the alphabet involving different angles of turn.



What the children said:

Do we need to turn left or right?

Let's use repeat to make lots of letters.

Pupils should:

- Know how to use a sequence of instructions to achieve predicted, specific outcomes.
- Know how to make appropriate choices when using ICT based models or simulations.
- Know how to use a simulation to help find things out and solve problems.
- Know how to estimate units and use the correct commands to move the turtle to another part of the screen, whichever way it is heading.
- Know how to use REPEAT to make a set of commands happen many times.

Next steps:

- Use a procedure to draw patterns.
- Know how to copy a command line, and edit a set of commands.
- Know how to save a set of commands as a procedure.

Suggested resources:

Onscreen robots e.g. Roamer World, Imagine Logo, MSW Logo, Textease Turtle, 2Go

Example Cross Curricular Activities:

- Explore angles of turn by drawing different letters of the alphabet or 2D shapes onscreen (Mathematics).
- Use an onscreen robot to create a pattern using a range of 2D shapes (Mathematics / Art).
- Explore the impact of changing the variables of length and width when creating shapes and patterns (Mathematics).
- Use an onscreen robot to create patterns e.g. an Islamic border (RE).
- Design a Tudor rose or other spiralling pattern using an onscreen robot (History).

Attainment target for ICT

Level 2
Pupils use ICT to organise and classify information and to present their findings. They enter, save and retrieve work. They use ICT to help them generate, amend and record their work and share their ideas in different forms, including text, tables, images and sound. They plan and give instructions to make things happen and describe the effects. They use ICT to explore what happens in real and imaginary situations. They talk about their experiences of ICT both inside and outside school.

Level 3
Pupils use ICT to save information and to find and use appropriate stored information, following straightforward lines of enquiry. They use ICT to generate, develop, organise and present their work. They share and exchange their ideas with others. **They use sequences of instructions to control devices and achieve specific outcomes.** They make appropriate choices when using ICT based models or simulations to help them find things out and solve problems. They describe their use of ICT and its use outside school.

Level 4
Pupils understand the need for care in framing questions when collecting, finding and interrogating information. They interpret their findings, question plausibility and recognise that poor quality information leads to unreliable results. They add to, amend and combine different forms of information from a variety of sources. They use ICT to present information in different forms and show they are aware of the intended audience and the need for quality in their presentations. They exchange information and ideas with others in a variety of ways, including using email. They use ICT systems to control events in a predetermined manner and to sense physical data. They use ICT based models and simulations to explore patterns and relationships, and make predictions about the consequences of their decisions. They compare their use of ICT with other methods and with its use outside school.