

Access Key Definitions

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National Curriculum

Delivering letters

Activity Description

The teacher started by discussing her journey from home each morning. Then she asked the pupils to think about their routes to school.

The pupils realised that their journeys to school could be described by a series of left- and right-turns, involving different distances. The teacher showed the class how a floor turtle can be programmed to follow a specific route, just as the children follow a specific route to school from home.

The teacher created a simple route on the classroom floor, and asked the pupils to write down what their instructions would be for the turtle to follow that route. The teacher showed them how to input the instructions into the turtle. Some of the pupils had used the floor turtle before and showed their classmates how it worked.

When the teacher was satisfied that everyone could use the turtle confidently she created a slightly more complex route that included obstacles and some skittles to knock down. The teacher asked the pupils to explain how they would guide the turtle through the course, and then showed them how to record and test their instructions, and how to amend any errors they found.

The pupils then pretended that the turtle was a post van delivering letters to four houses on a map. The houses were set out in the shape of squares and the pupils had to create a set of instructions that would take the floor turtle around the houses and then back to the post office.

The pupils worked in pairs, based on ability, and were encouraged to talk about what would happen to the floor turtle at each stage. They had to record their instructions on paper and make corrections as they went along. Then they gave their instructions to another pair of pupils to test.

During the activity the teacher supported the pupils by trying out different degrees of turn, such as half- and quarter-turns. She encouraged the pupils to talk through their instructions with the rest of the class.

Activity Objectives

To understand how to control a turtle using instructions.

To calculate the instructions required to make the floor turtle move around a prescribed route.

To record these instructions and describe their effects to others.

Commentary

Amy-Leigh acted out her instructions by pretending to be the floor turtle, but pointing to the relevant controls on the turtle. She said that if the post van was automatic, people would need to keep out of its way as it doesn't have eyes, which is why it knocked the skittles down.

She recalled a train ride in London where the train did not have a driver, commenting that the train would not knock anyone over, as it was not on the road.

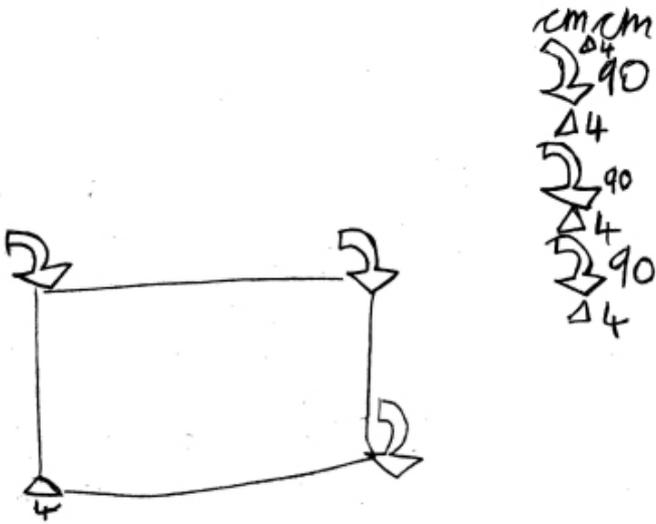
Amy-Leigh has been able to work out her instructions and then program the toy to follow the planned route, showing that she can plan and give instructions to make things happen. She described the effect that the instructions had on the floor turtle.

Amy-Leigh was able to pretend that the floor turtle was an automatic post van and she told the teacher that it might be dangerous for pedestrians. This shows that she is able to think about what happens when ICT is used in real and imaginary situations. When talking about the driverless train, she showed that she is able to talk about her experience of ICT outside school.

This example shows aspects of level 2.

To help Amy-Leigh progress further, the teacher could give her more complex problems to solve. In addition, Amy-Leigh could learn to generate, record and amend her instructions using ICT.

Amy-Leigh's set of instructions



Subject: ICT

Year: 1

Key stage: 1

Evidence for: Level 2

NC programme of study: p2c, p3b, p4b, p4c

This content relates to the 1999 programmes of study and attainment targets.