PGCE IT 2001-2002: Lesson plan pro-forma

Topic: Using Computers for Control	Date: 10/10/2001
Title: Using Logo	Time: 11:15 first lesson after break.
Duration: 75 mins	
Class: Year 7	Room: 102
Lesson no __1_ in a sequence of _3__ lessons	

Aim

To understand when using a language such as Logo, the computer needs to be 'spoon fed'. It will NOT grasp the meaning of a procedure without adherence to some simple rules of code.

Learning Objectives

All: Will demonstrate their understanding of Logo's directional rule of code. This will be evident by students' completion of task 1 – drawing basic shapes.

Most: Will have used Logo in Maths, but perhaps not in ICT and will be able to proceed to the second task, within the lesson time. They will demonstrate their understanding of the simple procedures in task sheet 2 by drawing shapes on shapes of differing size to make a house.

Some: Will complete tasks 1 and 2 and will move on to 3 where they will have mastered the basic procedures. This capability will be evident in task 3 where they will improve the code by reducing it. They will identify sets of procedures that define a shape. They will be able to use the edit function to name each shape. If they have time, they will then re-write the code for the house using the named shapes.

Key Questions

- What do directions do? - Why do we need directions?
- Also include questions to recap on basic rules of geometry.
- Fat book vs. thin book question. To bring in the idea less is more.

Resources

PC per student, 'on-line' tutor software and MSW Logo on all PC's, instructions sheet, task sheets 1, 2 and 3, blind fold, 2 bags of sweets, slide 1: objectives etc, slide 2: class 'directions' activity, spare pencils, graph paper, calculators for each student, students' work folders and a projector.

Links with IT NC/GCSE

The lesson fits in to the GCSE and GNVQ intermediate level schemes of work in that it demonstrates the important purpose for programming i.e. Control. It also shows how programming depends on a set of procedures, which can be modified in a continual series of checks and improvements, reducing repetition.

Link with previous lesson

The students' prior knowledge depends on which primary school they attended. Given that all will have encountered the concept behind Logo in year 6 numeracy SATS, and that some primary schools might have introduced Logo to students as part of their ICT programme, this lesson will be linked to the students knowledge of Logo in either Maths or in both Maths and ICT. This lesson links in with next week's lesson in Logo, where procedures will be further modified using 'Repeat' and using formula/code for variables. The next lesson's activity will include a video on the application of electronic control in real life scenarios.

Time	Pupil Activity	Teacher Activity	Resources
1 min 3 mins	Students settle. 3 minutes is allowed as they're just coming back from break. Some might begin to read slide one.	Instruction: "come in, collect files, sit down.."	Slide 1 on screen PCs switched on On Central table: students work folders, records and graph paper. At all work stations: calculators and instruction and task sheets
10 mins	When volunteer is chosen, only those students whose hands are raised are called up on to give directions to their blindfolded classmate. Those who get it right, get a handful of sweets.	Read out instructions. Request volunteer for blindfold. (Hands up)	Slide 2 is introduced Slide 1 is put back on screen.
6 mins	Only answers from children who are called upon are addressed.	Conclude activity with Q&A re: directions etc.. Read out slide 1 and instruct class to Log on.	

10 mins 18 mins 18 mins 1 min	Using instructions sheet and task sheets, students tackle sheet 1. Those who finish quickly, proceed to task 2. And possibly task 3 Students print and Log off.	Demo' – includes: Use of software, with deliberate misconceptions introduced and rectified. "use work-sheets" "5 mins left. Print and put in folders." Recap: objectives & instruct homework	'On-Line Tutor'. Slide 1

Homework/extension to next lesson	If not completed in lesson, task 3 should be completed at home if there is access to a pc. Otherwise, teacher should inform students of time and date of homework club, when they can complete the work. Recap briefly on key features of next week's lesson e.g. 'repeat' and 'variables' to shrink code. Assessment is by outcome. The levels of learning will be evident in the worksheets completed by the students.
Differentiation - alternative activities	Task sheets 1-3