

Topic Logo	Date
Title How to draw a house using Logo	Time 65 mins
Class Year 8	Room
Lesson no <u>  2/3  </u> in a sequence of <u>  3  </u> lessons	

**Aim**

To create a 'house' in Logo using simple procedures

**Learning Objectives**

All Be able to understand the concept of cause and effect  
Be able to use simple Logo commands to be able to draw the house  
Child understands that the fd command is the size and the rt is the angle  
Child understands that the effect angles have on the outcome of a shape  
Child understands that to find the angle you must divide 360° by the number of sides

Most Be able to draw the house using simple procedures  
Child understands the effect of defining a procedure

Some Be able to draw the house using procedures within procedures and possibly use variables.

Vocabulary: procedure, repetition, rate of turn, repeat pattern

**Key Questions**

What makes the turtle move in logo or how does the turtle move in Logo? (This is the introduction of cause and effect)  
How can we move the turtle around without it drawing?  
How can we make the turtle draw again?  
How many geometric shapes does this house have?  
How can we break down the shapes of the house into separate tasks?  
How can we make the separate tasks into procedures?  
How can we then use the procedures to draw the house?  
How can we make a shape larger?

**Resources**

Work sheet/homework sheet using squared paper with the house design on it.  
Computer/ICT suite  
Smartboard  
Logo software

**Links with IT NC/GCSE**

Strand: Developing ideas and making things happen  
Unit 5E 'Controlling devices' and unit 6C 'Control and monitoring – What happens when...?'

**Link with previous lesson**

Previous lesson the children would have used simple Logo commands to produce a polygon of different sizes using pen up and down and create a pattern. Understand the concept that a polygon and a pattern can be created using repeat commands.

Time	Pupil Activity	Teacher Activity	Resources
5 mins	Q&A related to the recap	Recap previous lesson	Smartboard
10 mins	Listening	Explanation of Learning objectives	Smartboard
10mins	Working in pairs and using worksheet write down commands how they would draw the walls and door of the house. When completed test out on computer.		Worksheet/ computer
10 mins	Q&A on problems and how to solve them	Recap how to work out the rt ( $360^\circ/\text{number of sides}$ ) Demonstration and Introduction of repeat, and procedures	Smartboard
10 mins	Using the worksheet identify from their commands where they can use repeat and create procedures then test out on the computer and save them.	At this point the advanced pupils will use the <b>repeat</b> function	Worksheet/ computer
5 mins	Q&A on problems and how to solve them.	Demonstration and recap creating a pattern to draw the window	Smartboard
10 min	Using their worksheet calculate the 'pattern' for creating the window and test it out.	At this point the advanced pupils could be using procedures within procedures	Worksheet/ Computer
5 min		Summation of Lesson	Smartboard
Homework/extension to next lesson		Homework- complete the commands to create the house (except the roof) on their worksheets ready for testing next lesson.  Also to find five other examples of cause	

	and effect. E.g. automatic door- light beam (cause) door open (effect)
Differentiation - alternative activities	See aims