

Extension Task

Exchanging and
Sharing Information

Year 5

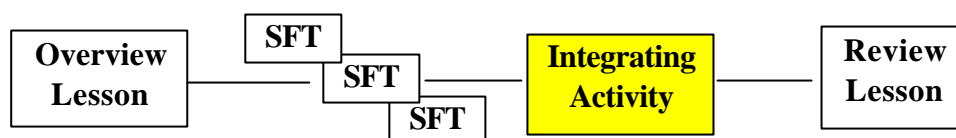
Change of plan!

Learning objective: **I can.....**

PoS Lesson 4 of 5

Create a graphical model to identify patterns and relationships

QCA Ref: 5A



Resources

Squared paper and rulers.

Software you could use: MS Word, Talking first word or Write Away

Support files: classroom plan.doc

URL:

Introduction/context: (15mins)

The children will develop their skills further in using the object-based package to manipulate shapes. On completion of this task they will be able to create a graphic model that will identify patterns and will test relationships.

Away from the computer

Remind the children of techniques that they have learnt using paint packages. Explain that they are now going to create objects, layer them using the computer and this will allow us to predict real life events. The context for this task will be a classroom plan to scale where the children need to find out how many tables would fit in the classroom using different layouts and different sized chairs/tables. Ask the children to consider the alternatives, eg. What would happen if the tables were twice as long? Can you identify any patterns?

At the computer:

First demonstrate how to double-click an object to show the different options available. Here the children can resize exactly, ensuring that the tables really do become twice as long.

Ask one child to come and demonstrate this process to the rest of the class.

Ask the children to create a large rectangle that covers the majority of the A4 page (landscape is preferable). Then suggest that the children choose a light shade to represent the floor. Ask them to solve problems like:

1. There needs to be 15 identical tables and 30 identical chairs in the classroom. What is the best arrangement?
2. Make sure you leave space for a sink, a teacher's desk and an art area.
3. If the desks were 50% longer, would they still fit?
4. Where could we put two additional tables to represent two additional classroom computers?

Demonstrate again how to copy and paste. This will allow the children to create one table and then to 'clone' them to make as many as required.

Vocabulary/functions:

object, layer, scale. Predict, test, pattern, model

Integrated Task: (15-20mins per child)

Go through the 'tips' below with whole class before they start the integrated task.

Each child is given 15-20 minutes to develop their plan of the classroom. Once they have completed the task ask them to annotate and answer some of the above questions 1-4.

Teaching Points:

As the number of objects build up so do the number of layers. It is useful to point out that if we did not change the order of the layers the last child to add their object would automatically be on the top layer.

Review / Assessment (10 mins).

Assessment of this task is possible with a quick glance at the computer screen. It is worth printing out a couple of documents as samples of evidence.

Children can also complete their self-assessment cards upon completion of the activity.

As this is designed as an extension task – assessment should be made to the level of questioning made about their models and any patterns that were found.

Key Questions:

What is an appropriate desk size to scale? (10mmx20mm is a rough guide for table size to scale)

What patterns did you find?

Was this model useful? Why?

What comes next:

Review Lesson – 'Game On!!'