Exemplar 12: Finding Area

(Open-ended Question)

Learning Dimension: Measures

Learning Unit: Area (I)

Key Stage: 2

Objectives : To consolidate the concept of area.

Prerequisite Knowledge: Finding the area of figures using the standard unit: square centimetre (cm^2)

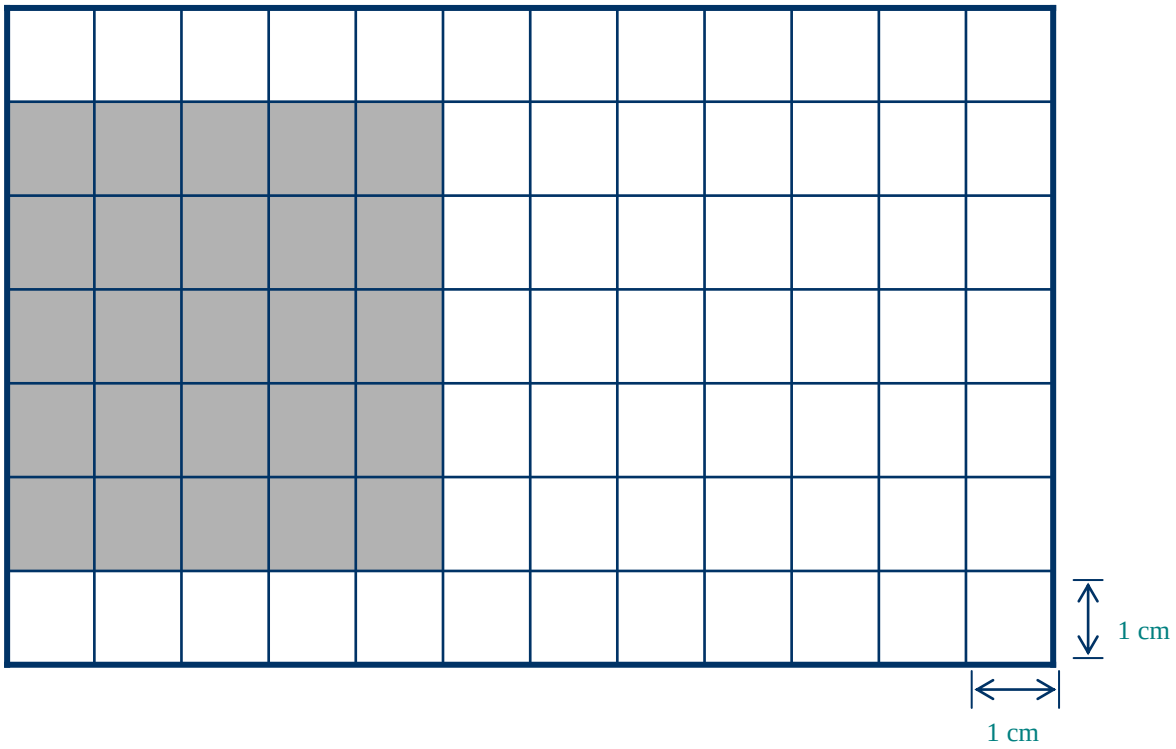
Teaching Resources: Grid paper

<For the problem, please look overleaf.>

Notes for Teachers:

1. Sufficient time should be allowed for pupils to draw the figures.
2. Figures should not be confined to regular ones. Irregular figures are allowed.
3. Pupils' understanding on the concept of area and creativity in drawing the figures are essential in this question.
4. Teachers can use the following assessment criteria to assess pupils' performance:
   (a) Can pupils understand the concept of area? (Are the figures drawn closed figures?)
   (b) Can pupils measure areas using square centimetres accurately?
   (c) Can pupils reach the minimum requirement? (The construction of Three figures of areas of 25 square centimeters}
   (d) Can pupils draw the figures creatively?

Problem



(a) Draw at least three figures which have the same area as the shaded figure provided.

(b) How do you know that they have the same area?

(c) Can you draw funny figures with the same area?

This exemplar mainly involves the following generic skills:

1. Creativity
   - Draw figures other than common rectangles
   - Use different methods of finding the areas of figures

2. Problem-solving Skills
   - Use simple methods to find the areas of figures
   - Apply previous knowledge learnt from the past to draw figures