Diagnostic
TASK

Tiling Problem   K–Year 4

Purpose

To investigate how and if children use an array structure when working out how many tiles fit in a rectangle.

Materials

One 2 cm tile, cardboard square or block along with the worksheet.

The rectangle may have to be adapted to match the dimensions of the available tile if it is not exactly 2 cm square.

Producing the work samples

Individual interview

Interviews are appropriate for younger students or for students whom teachers consider may be at risk. Read and familiarise children with the task on the sheet. Students carry out the task and record how they worked it out. They may need assistance to record this information.

Small group

Administering this task in small groups is appropriate for Years 3–4 children. It is advantageous for the teacher to observe and record what the children say and do throughout the activity. Read and familiarise children with the task on the sheet. Children carry out the task and record how they worked it out. They may need assistance to record this information.

Whole class

This task is suitable for a whole class for Year 3 and 4 children who are able to write how they work things out. Children may need help to record this information.

Tiling Problem

Name _____ Year _____ Date _____

Materials: one 2 cm square of cardboard, tile or cube and the worksheet.
How many 2 cm squares or tiles would you need to cover the rectangle?

How did you work it out?