Station 1

In this station we investigate the relationship between the area and perimeters of rectangles. The investigation is posed as two problems for the students to work on independently or with partners.

Resources:
- Square tiles
- Squared paper

Problem 1

The landscape gardeners have thirty-six square paving slabs to make a rest area in the middle of a lawn. To make it easy to mow they want the rest area to be rectangular in shape and have the least perimeter (distance around the outside) as possible.

What arrangement of the tiles gives the smallest possible perimeter?

Can you explain why this happens?

Problem 2:

Use what you have learned from the first problem to work out which rectangular rest area the gardeners would make if they had forty-eight tiles.