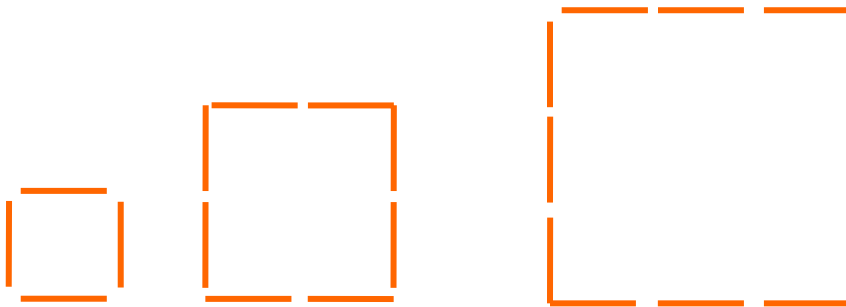


Building patterns 3

Materials: matchsticks

Here is a sequence of squares with sides measuring 1 matchstick, 2 matchsticks, 3 matchsticks, etc.



Now try this with your pattern!

1. Make the next two squares of the pattern.
2. The perimeter of a square is the distance all the way around.
Complete the table to show the perimeter of each of the squares.

Length of one side of square (in matchsticks)	Perimeter of square (in matchsticks)
1	4
2	
3	
4	
5	

Please turn over...

3. Looking at the pattern in the table, predict the perimeter of a square with sides 6, 7 and 8 matchsticks.

4. There is another pattern in the table. This pattern links the length of the side of the square to its perimeter. What is the rule which connects the length of the side of the square to its perimeter? Write it in words.

Challenge

Using the rule, find the perimeter of a square with side length of 79 matchsticks.

Adapted from *Access to Algebra Book 1* by Lowe, Johnstone, Kissane and Willis, 1993.