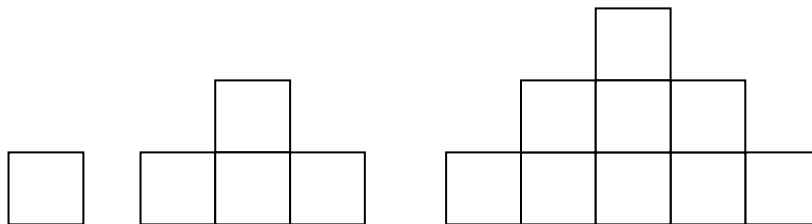


Building patterns 2

Materials: square tiles or blocks

Here is a sequence of buildings



Now try this with your pattern!

1. Make the next building in the sequence, a four storey building.
2. Use the table below to record the number of storeys and the number of blocks in the bottom storey for each building.

Number of storeys	Number of blocks in bottom storey
1	1
2	3
3	
4	
5	

Please turn over...

3. Look at the table carefully. Use the pattern of the numbers in the second column (1,3,...) to find the number of blocks in the bottom of a five-storey building.

4. Use your number pattern to predict the number of blocks in the bottom storey of a six-storey building. Write a sentence to describe the number pattern.

5. Use your pattern to predict how many blocks there will be in the bottom of a 30-storey building.

Challenge

Make a table to show the total number of blocks in each building.

Can you see a pattern?

How many blocks will be needed to build a ten-storey building?

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