An Artist's Delight

ACTIVITY

Turi is experimenting with colour. To begin with, she uses only 2 colours: blue and green.

To avoid having to clean her brush too often, she paints her design in only 2 orders:
all the blue first and then all the green or all the green and then all the blue.
She writes these orders as BG, GB.

1. List all the orders she could colour her design if she included red.

2. a. How many different orders would there be if she added a fourth colour, orange?
   You may like to list them.
   b. Complete the following table:

Number of colours	1	2	3	4
Different orders				

   c. Predict how many different orders there would be if she had 5 colours.

3. Write a rule for the number of different orders that Turi could colour designs
   with any number of different-coloured paints.