Queen Mary
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Simple Colour By Number Pixel Puzzle Picture 1S: Mini-beasts

Pictures can be stored in a computer as a grid of numbers. Each number gives the colour of that small area or **pixel**. This is also the way digital images are stored and represented on a screen.

In this simple colour-by-number puzzle you must recreate the picture by colouring each **pixel** as given by its number. Look up the colour for each number in the key. For example, colour pixels marked 0 in black, and pixels marked 1 in red.

5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5	5	5	5	5	5	5	5	8	5	5	5	5	5	5	5
5	5	5	5	5	5	5	3	0	3	5	5	5	5	5	5
5	5	5	1	1	5	5	3	0	3	5	5	5	8	5	5
5	5	1	3	3	1	5	5	5	5	5	5	3	0	3	5
5	5	1	3	3	1	5	5	5	5	5	5	3	0	3	5
5	5	5	1	1	5	5	5	8	5	5	5	5	5	5	5
5	5	5	5	4	5	5	3	0	3	5	5	5	5	1	5
5	1	1	5	4	5	5	3	0	3	5	5	5	1	3	1
1	3	3	1	4	5	5	5	5	5	5	6	5	5	1	5
1	3	3	1	4	5	6	5	5	5	6	2	6	5	4	5
4	1	1	5	4	6	2	6	5	5	5	6	5	1	1	5
4	7	6	6	4	5	6	5	1	1	5	4	1	3	3	1
4	6	2	2	6	7	4	1	3	3	1	4	1	3	3	1
4	6	2	2	6	7	4	1	3	3	1	4	7	1	1	4
4	7	6	6	7	7	4	7	1	1	4	4	7	7	7	4

KEY

0	(black)
1	(red)
2	(orange)
3	(yellow)
4	(green)
5	(blue)
6	(purple)
7	(brown)
8	(white)

What **algorithm** did you use to colour the picture?

Here are three ways:
1) Work along the rows colouring each pixel in turn before moving to the next row.
2) Pick a colour then work along the rows, colouring pixels of only that colour. When you get to the end of the grid, pick the next colour and start again. Repeat this until you run out of colours.
3) Pick an uncoloured square and colour it, then colour all pixels around it that are the same number, moving outwards until their are no more adjacent pixels with that number. Then pick a new uncoloured square and repeat until the whole picture is done.

Why not create your own pixel puzzle picture?