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CUBISM

Robert Watts goes all retro by seeking inspiration from that Seventies classic, the Rubik's Cube

For the final part of our giant art series, children will collaborate to create huge 3D puzzles inspired by that symbol of the 1970s, the Rubik's Cube. Groups of children will transform cardboard boxes into colourful cuboids, before assembling them into one large structure. This structure can then be rearranged to change its appearance every day, providing your classroom with a striking piece of art that children will find both intriguing and challenging (see page 42).

Curriculum links:

Art and design 1b, 3a, 4a. Ma2 1a.

You will need: eight cardboard boxes of identical size; ready-mixed paint; brushes; pots; palettes; PVA glue.

You might think that the Rubik's Cube was one of those novelty items that disappeared into the bargain bins some years ago. Think again: my six-year-old recently arrived home with one, prompting me to prove that my problem-solving skills are as limited now as they were when I was his age. The Rubik's Cube features nine small panels on each of its six faces that can be arranged to make each of the faces appear the same colour.

If you have a Rubik's Cube of your own, show it to your class. A brief experiment should be enough to demonstrate to the children that solving the puzzle is a time-consuming challenge. Yet it will also introduce them to the idea of creating an artwork of their own that can be changed and rearranged. Explain that the children will be creating their own cuboid composed of individual boxes, each of which will feature their own painted designs.

Planning ahead

Now, like most simple ideas, this one is quite complicated and will need a little careful planning. The final cuboid will have six faces, each of which will be split into four equal sections. Your cardboard boxes are likely to be cuboids rather than cubes – the faces won't all be equal sizes – so you'll need to identify which face of each box will be which colour.

Work with one group to arrange the eight boxes on the floor and label the top side of each box 'red'. Then turn each of the boxes 90° in the same direction and label the tops 'blue'. You will then have eight 'reds', eight 'yellows', and so on. If anything printed on the box shows through, you will need to cover these faces with card first. You'll also need to tape up the open side of each box.

Group work

You'll now need six groups, each of whom will be painting with only one colour. There will be a total of 48 faces to paint, eight of each colour, and children must follow the colour guide written on the boxes. It will be easier to have no more than three groups working at once, as not all the faces of the cubes will be accessible at the same time.

With most painting activities you'd be encouraging children to mix different combinations and tones of colours. On this occasion, however, we've restricted ourselves to red, yellow, blue, green, black and white, to recreate that Rubik's Cube effect (see over the page). Once all the painted surfaces are dry, reassemble the eight boxes into one large cuboid.

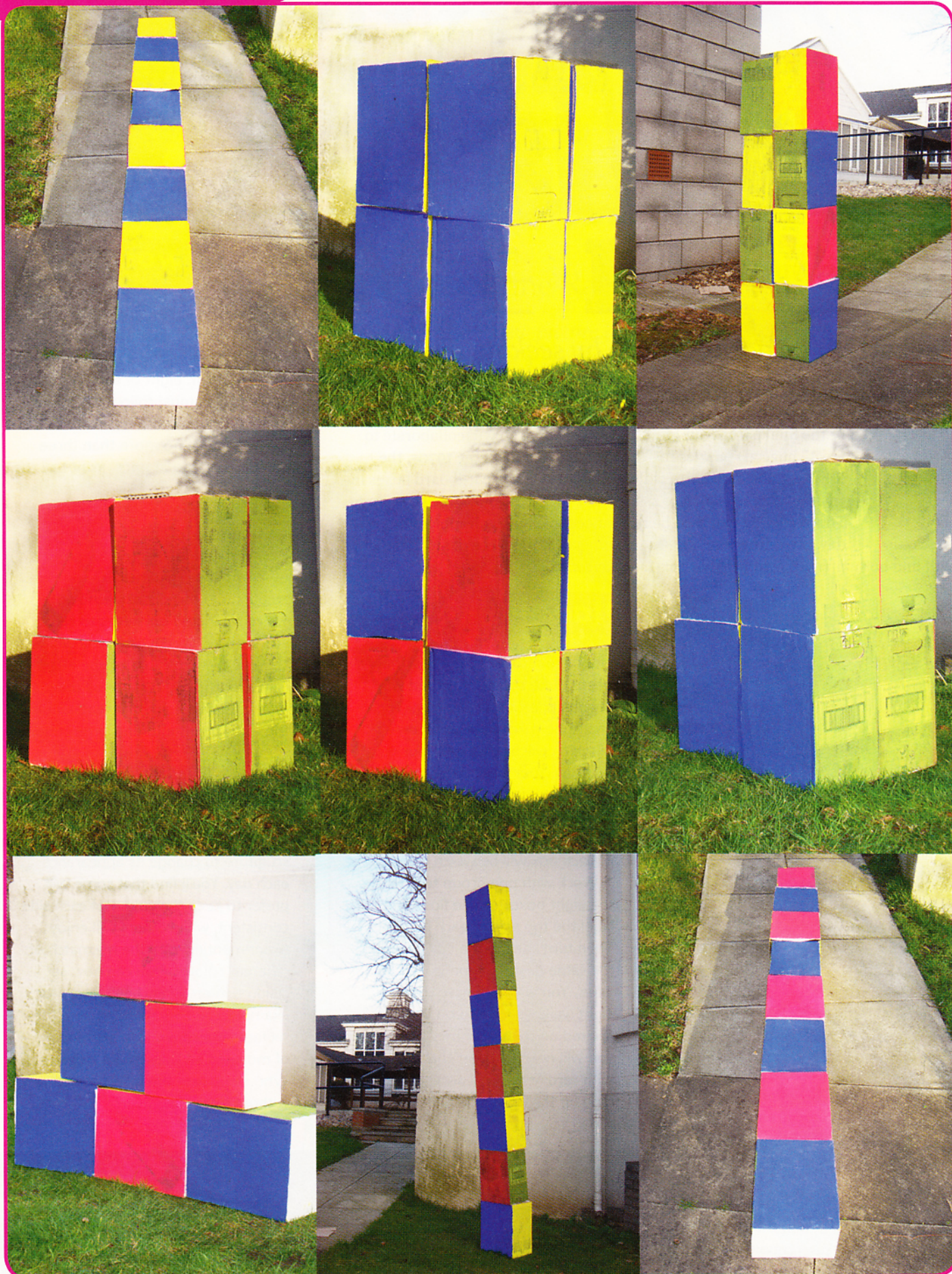
Individualising

Children will enjoy rearranging the sculpture to change its appearance each day. You'll find that some will prefer to keep the colour of each side consistent, while others will enjoy experimenting with the mismatch of different colours. You can now set children interesting challenges – for example, can they make each of the six faces match within a set number of moves? Can they create a pyramid? Who can create the tallest structure without it toppling over?

Extension ideas:

Now that the principle of the changeable sculpture is understood, it can be taken a stage further. Suggest to the children that each of the six faces of the cube could be altered by adding a simple collaged image. The cubes would then need to be arranged in the correct formation so that the image can be 'read', a great way of enhancing the puzzle-like quality of the sculpture. ➤

Cubism



Ever-changing artwork: children will enjoy painting the surfaces and rearranging them each day – the possibilities are virtually endless!

IMAGES COURTESY OF ROBERT WATTS