

S·T·E·A·M

SCIENCE•TECHNOLOGY•ENGINEERING•ART•MATHS

THE
S·T·E·A·M
TEAM



and the Artist's
Design Device

tessellation

polygon

vanishing point

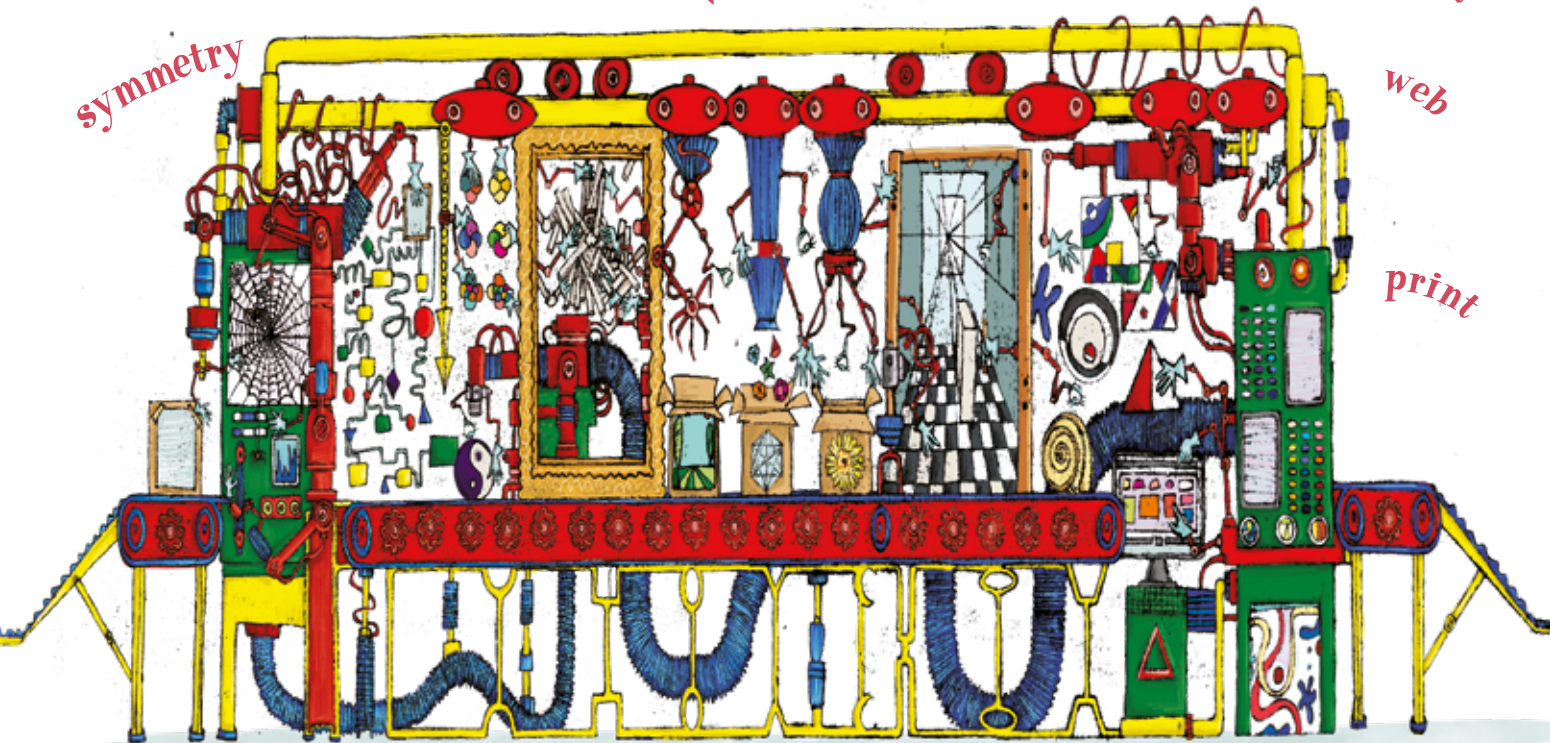
proportion

flowchart

symmetry

web

print




order

sequence

perspective

pattern

Contents

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- A young girl with dark hair in a braid, wearing a white short-sleeved shirt with a blue bow and a red pleated skirt, is painting a large, colorful abstract design on a white wall. She is holding a paintbrush and has just finished a stroke of yellow paint. The design consists of various colored circles and splatters in yellow, green, blue, and red.
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The Artist's challenge



The Artist is scratching his head. He has been busy selecting all the elements he will need to make his amazing design device. He's found an eye-catching collection of bits and pieces.

Some elements have been chosen for their shape, others for their colour. Some were selected for their texture while others are in the mix just because they are unusual. 'They're the bits to grab your interest,' says the Artist.

The Scientist has spotted some things in the pile that really interest him.
'I see you've found a perfect example of nature's own clever design,' he says. 'There's nothing more efficient and well-designed than a spider's web.'



A spider's web is made of silk, produced from spinnerets at the end of a spider's abdomen.

The Mathematician agrees. A web is a perfect piece of geometry with its lines radiating from the centre, its expanding, or concentric, circles growing larger as they spread outwards.



'In fact spiders are incredible engineers,' says the Engineer. 'They can take just an hour or two to build a structure that is strong and useful. I wish I could work that quickly!'

The Artist agrees although the spider wasn't part of his plan. It just seems to have joined in of its own accord.

