

# Fun stuff!

## Make it

# Maths art!

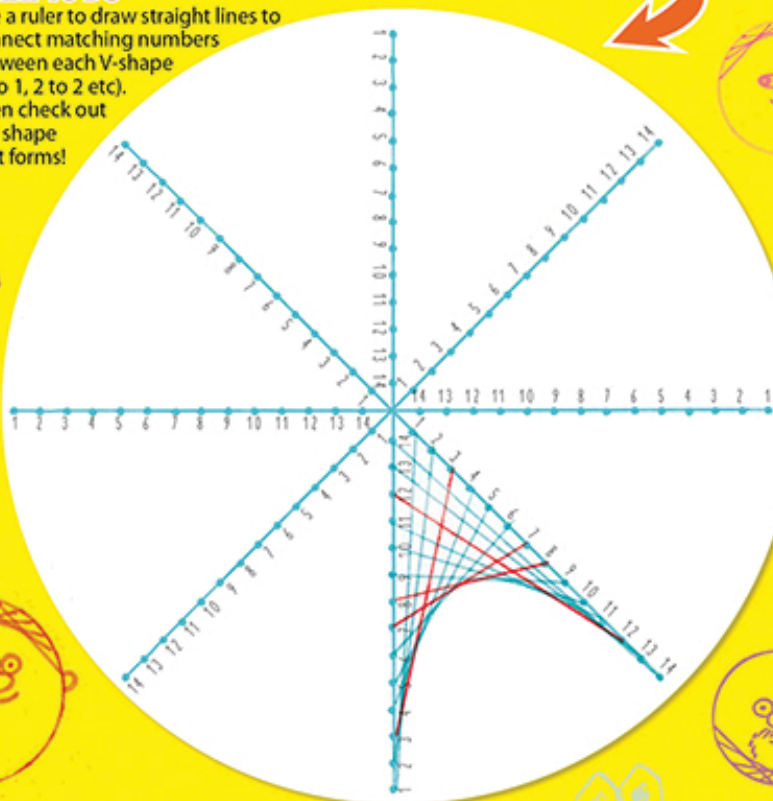
Maths and art might seem worlds apart, but they're actually both full of beautiful patterns. Have a go at these smart art activities and puzzles...

## CRAZY CURVES

Did you know that you can make curves using a ruler?! This type of curve is called a **parabolic curve**. Use the grid below to create a cool parabolic curve design.

### WHAT TO DO

Use a ruler to draw straight lines to connect matching numbers between each V-shape (1 to 1, 2 to 2 etc). Then check out the shape that forms!

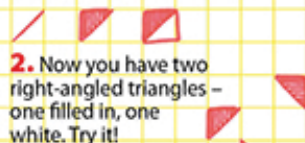


## TINY TRIANGLES

Create tiny triangle 'tile' patterns using square grid paper and a pen.

### WHAT TO DO

1. Make a right-angled triangle by drawing a diagonal line through one of these tiny squares and colouring one side in...



2. Now you have two right-angled triangles – one filled in, one white. Try it!

3. Draw triangle tiles next to each other to make a larger pattern...



4. Keep the pattern going!

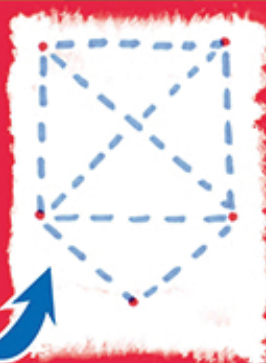
Make your own triangle tile patterns here!

## EULER'S CHALLENGE

Can you trace over these drawings, starting and ending at the same dot, without lifting your pencil? You can only go over each line once!



They might be tricky, but they are do-able. Now try this one...



It's impossible, right? That's because this trick only works if every point in the drawing has an **even number** of lines coming out of it. A mathematician called **Leonhard Euler** figured this out in the 18th century.

## PUZZLE BOOKS!

These awesome activities are taken from *This is Not a Maths Book* by Anna Weltman. Learn how to create a dazzling array of amazing mathematical patterns and shapes, from perfect circles to 'impossible' triangles. To be in with a chance of getting your hands on one of five copies of this smart art book, just answer this question...

- Q Which tool can be used to draw a perfect circle?  
 a) Protractor b) Compass  
 c) Set square



Q What do you call a dinosaur playing Hide 'n' Seek? A Do-you-think-he-saw-us?! Q Where do dinosaurs like to go swimming? A At the dino-shore!