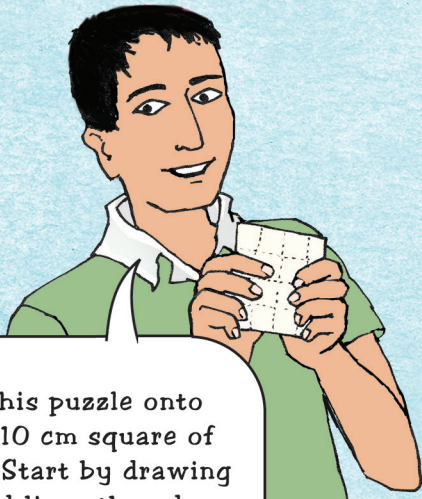
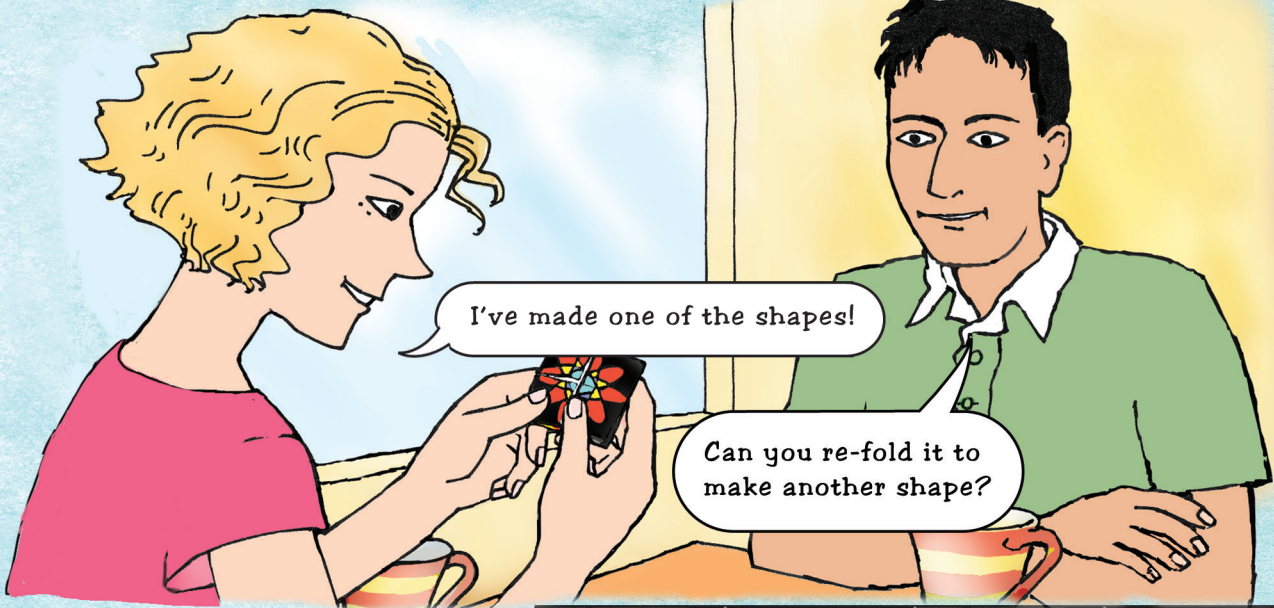


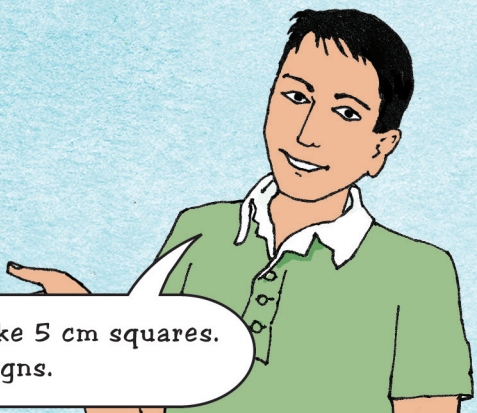
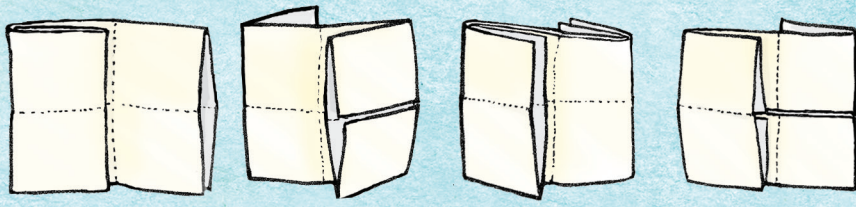
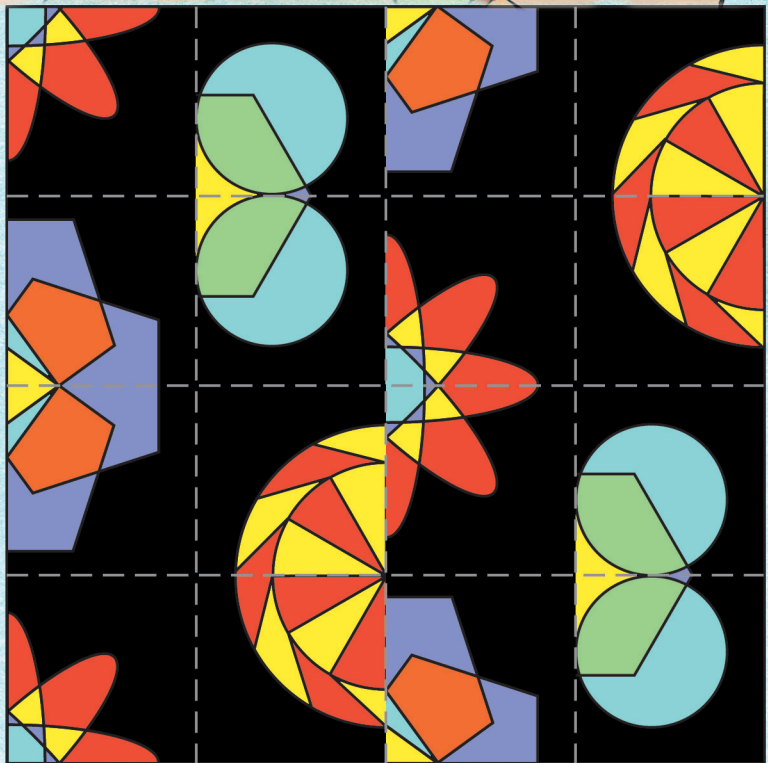
Fold it!

Use your Mathomat to create an exciting folding paper puzzle.

Will has made a folding puzzle. Sophia is trying to solve it.

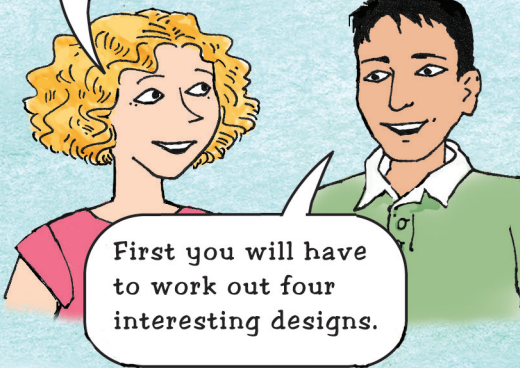


Copy this puzzle onto a 10 x 10 cm square of paper. Start by drawing the fold lines then draw in the shapes just as they are here, using your Mathomat. Then you can try puzzling it out yourself!

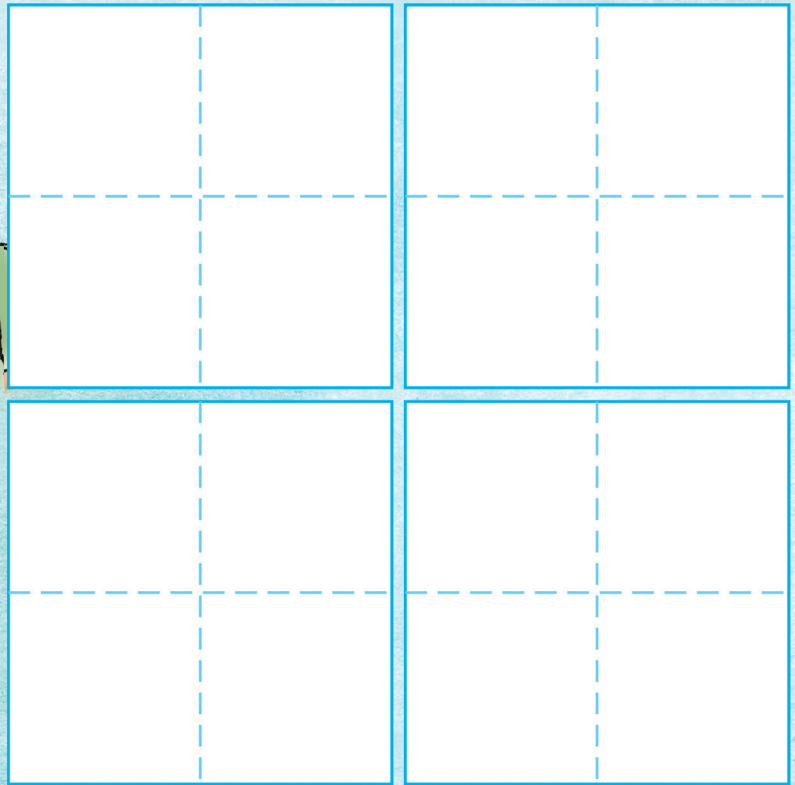


Try folding all ways to make 5 cm squares. Find four symmetrical designs.

I'd like to make a fold-up puzzle with my own designs.



First you will have to work out four interesting designs.

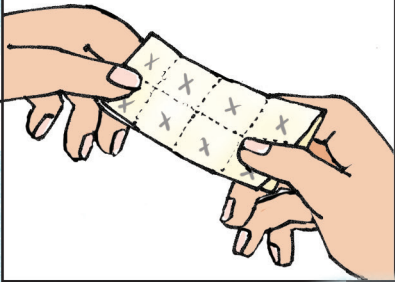


Design a puzzle

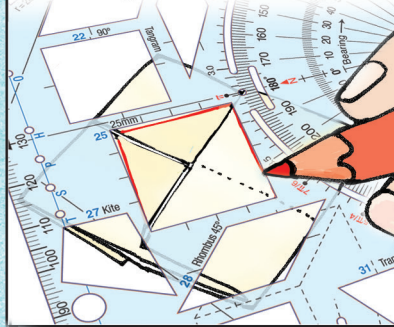
Make different designs in each of the four grids. Try to fill as much of the area as you can. Keep your first designs fairly simple. The clockface on your Mathomat can be used to mark out a large triangle, square, pentagon and hexagon...

Make the puzzle

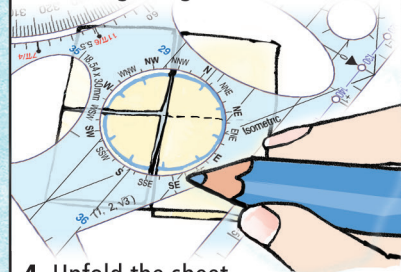
1. Fold a 10 x 10 cm blank sheet into 16 smaller squares. Mark all the squares on **one** side of the paper with small crosses in pencil. These are on the back of the puzzle.



2. Fold the sheet so that only 4 of the smaller squares on the front (without crosses) are showing. They should **not** all be adjacent, i.e. not a group of 4. Draw one of your designs across the 4 squares.



3. Fold the sheet again so that another set of 4 blank squares are showing. Draw in another of your designs. Repeat for the two remaining designs.



4. Unfold the sheet. Challenge a friend to solve your 'Fold-up' puzzle.

More puzzles

What designs can you come up with? Use your Mathomat to make a set of snowflakes, or solid shapes or tessellations or teacups or ...

