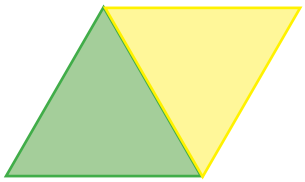
THE MATHEMATICAL
ASSOCIATION OF VICTORIA

PUZZLERS

Teachers can photocopy this page to use in class



FOUNDATION
MATCHING TRIANGLES

These triangles belong to three different families. All the triangles in the same family are the same shape. But they may not be the same size or the same way up.

Can you sort them out and explain how you did it?

http://nrich.maths.org/5638

YEARS 1 AND 2
TRIANGLE ANIMALS

I can join two equilateral triangles together along their edges like the picture above.

How many different ways are there to join three equilateral triangles together? (You must match an edge to an edge.) How do you know you have got them all? How many different ways are there to join four equilateral triangles together?

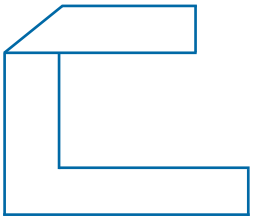
Have you got a system for checking that you have them all?

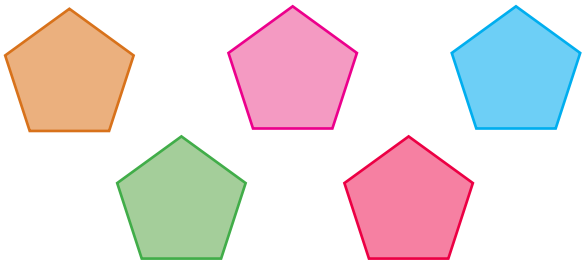
http://nrich.maths.org/4869

ABCDEFGH

IJKLMNOPQ

RSTUVWXYZ





YEARS 3 AND 4
WHICH LETTER IS IT?

Scott cut out an uppercase letter from a piece of paper and then made one fold. The result looked like the image above right Which letter was it? Here are a couple of hints:

- There are two possibilities.
- The letter may be flipped or rotated before you make the fold.

http://www.planetseed.com/mathpuzzles/which-letter

YEARS 5 AND 6
HEXPENTAS

What different shapes can you make using five hexagons? How will you know you have found all the ways? Using five regular hexagons, how many shapes can you make by joining sides together? Hexagons must join along a side, not at a corner. Be careful that you don't have the same shape twice. Remember reflections and rotations of a shape are not a new shape. Hint – you may be surprised at how many hexpentas you can make!

http://nrich.maths.org/6523