



Five-piece tangrams

These puzzles are very popular with students from kindergarten students through grade 3. Having only five pieces instead of the classic seven makes them much less intimidating for many people. Students who enjoy these puzzles may be encouraged to try the classic tangrams.

Making the pieces

I use craft foam because it is easy to handle and lasts very well, but if you are in a hurry, you could make them out of cardstock. Here is the template for the pieces which fit into my puzzles. Colour-coding the shapes makes it easier to check that a set is complete and to compare solutions to puzzles.

I made a magnetic set of pieces for classroom demonstration by sticking a foam set to shapes cut from magnetic sheeting.

Getting started

I like to review the names of the pieces first. The only piece that is probably unfamiliar to primary students is the parallelogram (in blue), but even kindergarteners are more than capable of learning the word – after all, it's got the same number of syllables as "tyrannosaurus", which they can rattle off with ease.

While we are all looking at the board, I ask if anyone can see how to make one of the pieces out of two of the others. Usually the first student to volunteer arranges the two small triangles to mimic the orange square.

Then I ask for someone to use those same small triangles to make the same size and shape as the green triangle, and after that has been done, ask for someone to show us how to make the blue parallelogram out of those two small triangles. That is trickier – it may help to suggest that the volunteer place the smaller shapes over the big one to see how they fit together. This leads to the printed puzzles.

Printed puzzles

Now everyone gets their own set of five pieces and the first page of puzzles. Sometimes we go through several of these together before I turn the students loose to go at their own speed.

Depending on the age of the class and their ability to reflect on their experiences, at the end of the session we might discuss what makes a puzzle easier or harder to solve.

pages 1 & 2; pages 3 & 4; page 5; page 6