

My thesis deals with different ways of use of Pentominoes and Tangram brain-teasers in teaching of mathematics to special educational needs pupils. In the theoretical part I introduced these brain-teasers, I explained affine mapping using their particular pieces, I analysed similar tasks in mathematics textbooks for 6 to 10-year-olds and pointed out the issues of special educational needs pupils.

In the practical part I described a few lessons of experimental education with six pupils of practical basic school. In the first year we dealt with Tangram brain-teaser. We made the separate pieces of paper, we handled wooden cubes and used Tangram pictures for development of visual perception and approximation of affine mapping. The next year the pupils schemed out their Pentominoes cubes first and then they worked with them. They drew them in a grid, built pictures, played a game for two etc. At the end I summarised my thesis and I evaluated it.