The diploma thesis Learning about geometrical shapes is focused on the development of the spatial imagination of learners using tangram. This aid is examined by mathematics and the possibilities of the usage of the aid while teaching mathematics at primary school are presented. The aim of this paper is to describe the solving process and strategies of tangram tasks, to descibe and explain phenomena concerning pupil's learning process about geometrical shapes using qualitative analysis. To reach the goals the experiments were done, their analysis is the maim pillar of this paper. While preparing the tools of the experiments, the difficulty criteria were set so it is possible to sort out the patterns according to that. The results of this paper shows that the solving strategies of learners are often similar to the adults' one, the difference is just in the experiences which make the adults' solving process faster.