The presented diploma thesis examines the possibilities of developing algorithmic thinking in primary school pupils. Algorithmic thinking is a necessary tool for effective analysis of the problem and the creation of a procedure for its subsequent repeatable solution.
The main research topic of this work is effective and efficient ways of developing algorithmic thinking, especially how to formulate a problem and how to develop algorithmic thinking with the greatest effect in the educational process.

The work summarizes various ways of developing algorithmic thinking and the approach to its teaching. The concepts of computer thinking, algorithmic thinking, algorithm and algorithmization are defined and analyzed. Furthermore, contemporary means of developing algorithmic thinking described in the literature are specified. They are then critically evaluated and at the end of the theoretical part the most suitable set of means is selected and the way of their use is proposed.

Action research was carried out in the circle of informatics at the primary school in Prague. The verification of the effectiveness of the selected instruments took place during fifteen sixty-minute lessons. The focus of this research lies in increasing the quality of pedagogical practice of the teacher, in the development of his didactic thinking and skills. On the other hand, it is the result of better education of pupils and improvement of the quality of education provided.

Sixteen lessons are analyzed, their characteristics and benefits in the field of individual algorithmic constructs are presented. Experiences from individual tasks are summarized in methodological notes that enable the role of the teacher.

The diploma thesis provides outputs for the development of algorithmic thinking. This information can become a guide and inspiration for any teacher looking to develop this thinking in their students.