

The aim of this work was to prepare activities and identify suitable physics problems that focus on students' abilities to solve physics problems and should help them develop their physical thinking. Four activities are described in this thesis. A teacher's methodical sheet that describes the activity and includes information about the type of developed problem solving skill as well as a worksheet with problems and solution of the worksheet were created for each activity. All worksheets were tested at upper secondary schools. The aim of the research was to find out if teachers and students consider the prepared activities, or more precisely the worksheets, as useful and usable. For the purposes of this research, a case study was chosen as a research method, in which participant observations and structured interviews with students and teachers were the main data for collection sources.