

ABSTRACT

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Chemical experiments for ecoschools

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This thesis deals with environmental education in chemistry at both of the primary schools and the lower level of grammar schools. It is primarily focused on environmental chemical experiments at ecoschools. Since this topic is highly interdisciplinary, thesis interferes with other educational areas and disciplines than in chemistry.

The theoretical part deals with the current situation in the field of environmental education. There is a tentative analysis of several contemporary Czech textbooks for primary schools and lower level of grammar schools. The analysis compares the representation of selected environmental topics and the number of experiments that appear in textbooks. In the practical part there are prepared teaching materials to support the experimental teaching chemistry with author solution for teachers. My intention was to create a stack of environmental experiments that should serve to facilitate the preparation of teachers in chemistry class, mostly in the experimental plane. Experiments demonstrate or explain principle, origin, prevention, solutions of various environmental problems. Except experiments part of teaching materials there are worksheets with different types of questions, crosswords, games, tasks, work with text, looking up information on the Internet, work with map, etc. The main objective of worksheets is to verify or enhance curriculum while creating a positive relationship with the events that are happening around us in nature.

In Annex of thesis there are all materials that are designed for students. The CD with teaching materials, including images that were taken during the verification experiments, is part of Annex.