ABSTRACT

This bachelor thesis deals with the issue of research-based teaching and its application in chemistry education. In the theoretical part, the division, meaning and position of the framework curriculum in primary schools is presented. The next part deals with inquiry-based teaching, its definition, advantages and disadvantages that it can bring to chemistry teaching and education in general. The paper then focuses on motivation, its types, how it can be used in teaching and the factors affecting motivation. In the practical part, the findings from the previous chapters are used to develop two worksheets to support inquiry-based activities. They are designed to make it as easy as possible for pupils to understand the material themselves. The two worksheets are divided into two parts. The first is for the teacher, divided into several sections to make it easy to understand the teacher's necessary preparation for the lesson and the procedures and outcomes expected of the pupils. There is also a section of hints, called 'tip-cards', to help pupils if they get lost in the process. The second part is for pupils. The worksheet has been designed to support as much as possible the exploratory style of teaching and, more importantly, the independence of the pupils. Emphasis is also placed on linking background knowledge to real-world applications. Both worksheets were pilot tested on 8th grade pupils at the 1. základní škole in Říčany u Prahy.

KEYWORDS

Worksheets, acids and bases, oxygen, carbon dioxide, chemistry