

# Abstract

Fungi are an important group of organisms in terms of ecology, agriculture, food production and human health. The impact of fungi can be beneficial, examples being the health benefits of consumption or use in biotechnology for the production of medicines, food and beverages. However, many species of fungi pose health risks to humans. They may contain toxins, that are harmful to health or even fatal. Other possible health complications include allergic reactions or asthma attacks. For these reasons, it is advisable to raise awareness of mushrooms, which is why mushrooms are an integral part of the framework education curriculum. However, there is a lack of detailed information on what specific information to include and how to deal with the topic in school practice. The aim of this thesis was to conduct a professional research on the issue of fungi, especially in relation to potential negative impacts on human health. The first part of the work is devoted to a brief characterization of mushrooms, followed by an overview of the main toxins and a description of the main health risks - asthma, allergies, poisoning. The last part of the thesis is then devoted to outlining possible topic areas that can be included in school teaching, with an emphasis on practical application in everyday life. The thesis emphasises the importance of prevention, for example in relation to the distinction between edible and inedible species. Teaching can usefully be supplemented by first aid training, as first aid knowledge is crucial not only in cases of poisoning.

## Keywords:

mushrooms, first aid, prevention, mushroom poisoning, mushroom toxins, mushrooms in education, poisoning