

Report on the holiday pass activity «Looking for traces in the water» for primary school kids

Introduction

Not all parents have the resources to provide trips for their children during the school holidays. The idea of the «holiday pass» is to provide primary school kids with meaningful, and also fun activities during their time off. A variety of very reasonable priced activities within different fields of interest (sports, science, creative activities etc.) is being offered.

The Institute of Natural Resource Sciences of the University of Applied Sciences Zurich offered the activity «Looking for traces in the water», which was attended by 20 pupils aged between 10 and 12. The activity took place on the 9th of July 2007 and lasted one full day.

Getting into the subject

The holiday pass activity began with an introduction into the subject of the water cycle. Based on a poster about the water cycle, pupils discussed different processes such as evaporation, groundwater, infiltration, and precipitation. They were encouraged to think about where they use water and how they could save water in their daily lives. After the discussion, exercise sheets were handed out to the pupils to practice what they had just learnt. While solving the exercises, they were given the opportunity to ask specific questions about the topic.

Sedimentation experiment

Next, small groups were formed to do a sedimentation experiment. For this, each group filled an empty bottle to one half with water out of a nearby river and to the other half with all kinds of materials which could be found in the water (sand, gravel, wood sticks, leaves etc.). After filling the bottles, the children returned to the classroom and the content of the bottles was left to settle for a little while. Once sedimentation was finished, they had to describe their observations, such as for example the colour of the water and the amount of sedimented and suspended material. The tutors explained interconnection between observations made during the experiment, and the natural sedimentation processes that take place in rivers and lakes.

Searching for aquatic animals in the river

The sedimentation experiment also lead over to the next big task: the search for aquatic animals in the river. First, pupils were instructed on where to look for the small organisms and on how to carefully collect them. Then, the groups, each one coached by one of the tutors, occupied different sampling stations along the river and searched for little animals hiding under stones, water plants and in the sand.



In the classroom the pupils were given the task, to identify the animals they had collected by using a water organism identification sheet and some additional books on aquatic organisms. They put animals of the same species together in the same containers, in order to be able to count them and to determine the water quality. They were shown how to examine the organisms using binoculars and how to carefully handle them using pipettes and small brushes.

As an additional task, the ones that liked to draw were invited to make a drawing of the animals they liked the most.

The boat race

Finally, after this rather quiet task, where the children were forced to concentrate and to work carefully with their hands, it was time for some action. The boys and girls were sent outside once again to search for wood and leaves and other suitable material to construct a little boat or raft. Once the boats were ready, everybody went outside to attend a boat race.



Retrospect

The children's knowledge of the water cycle varied a lot. There were those who already knew the topic very well and also the related keywords. Others had trouble when it came to, for example, the process of infiltration or the definition of precipitation. These differences in knowledge makes sense, as the pupils were from different grades.

Outside, the pupils were very active. Despite the sometimes heavy rain, the kids were eager to take turns in rummaging for little animals in the water. Back inside, they seemed very interested in analyzing the organisms with the binoculars.

Before the last part – the boat race – some of the children mentioned they didn't want to go back outside into the rain. But once some of the kids came back with construction material, the others were convinced and joined them in their task and it turned out, that everybody was having a lot of fun when it came to the racing part.

Water affects every child in a certain way and most of them like to play with it. Therefore, water topics are very well suited for environmental education.