

Project idea: „5,000 km against the current“

Competencies: Creative ability

Age group: from 12 years

Project duration: 90 minutes

Link to learning module: www.teachtoday.de/en/5000km

Project objectives

Through their encounters with and exploration of the natural habitats and ecosystem changes, children and teens ability to reflect upon and make certain judgements will be trained. By the end of the lesson, they will be able to learn about the topic of habitats from various perspectives and develop their own positions.

The children and teens will

- deal with fundamental operations of nature, both living and non-living, by looking closely at the example of the salmon.
- understand the importance of habitats and the factors that threaten those ecosystems.
- use digital tools in a channeled way specifically for documenting their research results and conclusions.

Subject and methods

The children and teens will

- evaluate both digital and analog sources of information and make their own assessment.
- learn to formulate processes and operations from a scientific perspective by conducting research on the natural habitat of salmon.
- be able to tap into media contributions as well as easily create their own simple contributions.

Activity and action competence

The children and teens will

- collaborate on creating digital maps, thus honing their cooperative skills and learning to support one another in the joint accomplishment.
- deal with research inquiry, doing the research itself and the strategies to gain access to the topic.
- exchange ideas and develop their own positions regarding the topic of “habitat conservation.”

Social communications



The children and teens will

- recognize the significance of the problem positions to be processed, “habitats and life cycles of salmon,” for themselves and act according to their newfound awareness of these issues.
- be able to transfer the knowledge they have gained to new problem areas, such as the disappearance and rehabilitation of sturgeon in the Elbe and Oder rivers, for example.
- create for themselves the right conditions for a rational logical understanding of the world as a way of exploring the world. That, along with other activities, is how the basis for developing environmental consciousness blossoms and grows.

Personal competence

Introduction

Tracking the return of the salmon with GeoMaps

Earlier in history, the salmon was regarded as cheap food for workers and servants, because it was nutritious, filling and plentiful in the rivers. For centuries in Germany it was caught by the ton. But from the mid-1960s till today it virtually disappeared from our rivers and ever since has only been fished out of the sea or bred in large fish farms. However, nowadays the wild salmon are returning to our inland rivers and lakes as well.

With the help of digital map services, children and teens systematically explore and reveal the salmon’s original habitat and the waterways. In this lesson they will search the Internet to find out about the interactions that occur between these organisms and systems in which they exist, and learn what factors can lead to the extinction of certain species.

Project procedure

The project “5,000 km against the current” is suitable as an introduction to the study of habitats and offers the opportunity to develop basic principles for a deeper understanding of nature and an understanding of complex processes in (natural) systems. It has a strong practical focus, and the project work is linked to the children and teens own environment.

Working with their partners, the children and teens take the salmon’s habitat and waterways to hand – and in doing so, they learn all about the use of digital mapping services. Their Internet research goes in-depth



into special particularities of this fish. Along the way, they follow the question of what factors have led to the salmon's decimation. In a subsequent discussion of the lesson with the whole group, they evaluate the results of their research and present their findings.

Further aspects can be integrated into the project, too, such as procedures for the determination of flora and fauna, as well as researching, classification and systematization of physical characteristics, for example.

Phase description | Social form

Phase 1 | Partner work

To get started, the children and teens learn about the original habitat of the animals, their natural surroundings and ecosystems. On the basis of an article on the return of the salmon to the Rhine river, they retrace the stations of the salmon migration using a Geomap. They create their own routes following the journey of the salmon and add comments and pictures.

GeoMaps

Phase 2 | Teamwork

After the migration of the salmon has been sufficiently covered, the children and teens go further with their partners and deepen their knowledge by studying the peculiarities of this salt- and freshwater fish. They do independent research online and record their search results in a Word document.

Word document

Phase 3 | Group discussion

After children and teens have developed a basic understanding of the habitat and this species of fish, the salmon, they ponder what factors might have led to the decimation of this remarkable fish in Germany. They also research on the Internet and put together the research findings/insights into their Word document. They then present the routes that they have created and discuss their research results in the learning group. All of the relevant aspects will be collected in a class mind map.

GeoMaps



Continuation

The procedure of the project is transferable to all regions and habitats. Similarly, the project procedure can be transferred to any other endangered migratory fish or migratory bird species. The main points can be weighted differently or expanded upon according to context. Comparisons could be drawn thusly, for example, between the salmon migration in 2 rivers such as the Rhine and the Elbe.

Notes



