Educational Pathway for the Geothink Contest 2015

Description

Title: Connect North and Black Sea through Rhine and Danube.

Author: George Yannelos M.Sc.

Short description:

This learning pathway presents the use of Google Earth or Google Maps for making an almost real journey from the delta of Rheine in North Sea, to the delta of Danube in Black Sea. The purpose of this journey is to explore the terrain around these rivers, to visit major and minor cities along the river path and to study the impact of this great water route to the neighboring societies.

Information

Context: Secondary Education

Age range: 12-15

Target audience: Teachers

Objectives: To understand
To think critically and creatively
To respond and participate

Teaching approach: Cognitivist
Collaborative learning
Inquiry learning

Level of difficulty: Medium

Time Required: Two weeks

Pre-visit

Provoke curiosity:

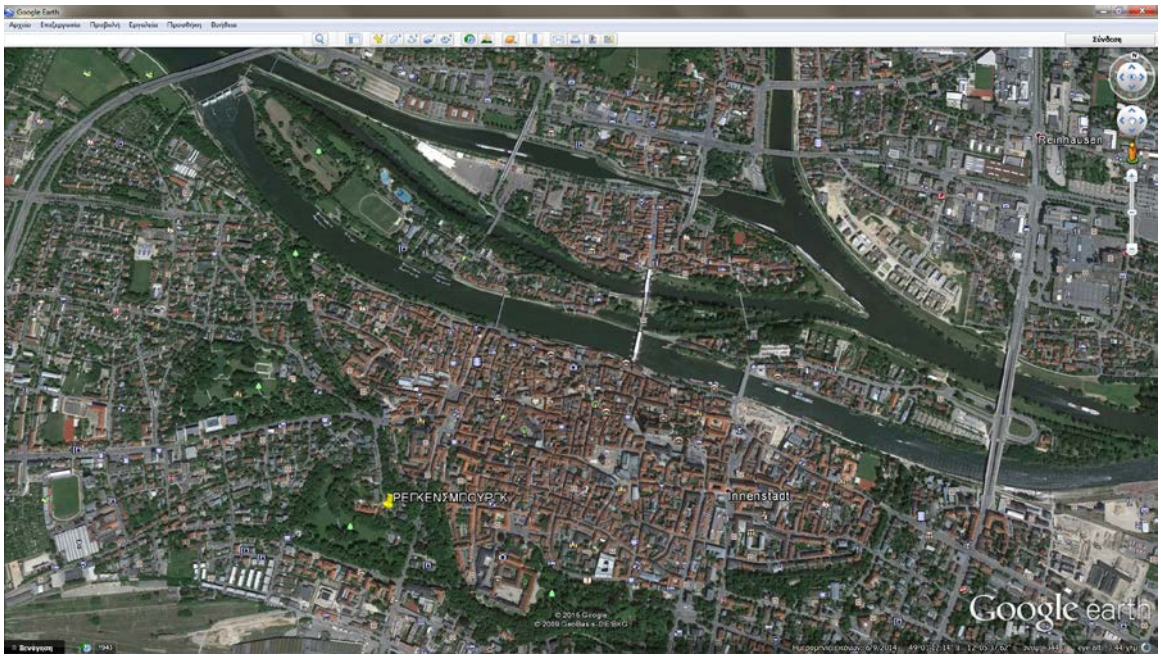
At first the teacher presents the major rivers of Europe and the countries they run through. He emphasizes to the fact that many of them are navigable so they are used for commercial purposes. Also he arouses interest by telling them that it is

possible for a ship to enter Europe at a point in North Sea and exit at another point in Black Sea. Following that, the teacher makes a small demonstration of the Google Earth or Google Maps tools that he is going to use. He selects a well-known local river and he shows the springs, the main stream, the delta area of the river and the surrounding terrain. Closing up, he finds a bridge over the very river and using the "street view" tool shows the river's view from that place.

Visit

Gather evidence from observation:

The teacher presents in short river Rheine and river Danube making a remark about the big canal that connects them at certain points. Students are divided into groups and the teacher gives them instructions about the segments of the route that they are going to study. Every group has to explore the terrain around the river, measure the width at many points and count the bridges, make a list of cities that exist nearby, use the street view tool or photos, placed in Google Earth by actual travelers, to experience a more live view of every sight. Also they have to gather information about the activities that take place in every segment of the river, the industrial, commercial, agriculture or tourist level of use etc. Alternatively, students could gather information about the culture and the history of the places they come across (i.e. The city of Regensburg is situated at the confluence of the Danube, Naab and Regen river. The medieval center of the city is a UNESCO World Heritage Site and a testimony of the city's status as cultural center of southern Germany in the middle ages. See photos below).





Post-visit

Communicate explanation:

At the end every group presents their findings to the class using an interactive board or a power point presentation. The teacher contacts a dialog between the students about their conclusions upon the significance of these rivers for the people and the impact to the economy of the countries involved. A poster could be produced showing the whole river path, the major cities that are crossed by the rivers, along with pictures attached. After the presentations, every student shall state at which of all the places that mentioned he or she would like to live.