



LESSON PLAN

Who is Afraid of Mathematics ?

Category: Maths in Nature/Geography

Title of the activity: A Map of Europe and partners' countries searching data

Year Group: 13-14

Teacher: Litwińczuk Kowalska Busłowska

Learning Objectives:

- to find and analyze the mathematical elements in Geography and Science
- to be able to register and compare data, such as weather and temperature, distance among cities on the map, height and size of natural and anthropic components
- to be able to collaborate in group-work in order to achieve the same goal

Success Criteria:

- task-based activities
- CLIL approach
- problem solving strategies
- to apply mathematical concepts in real situations
- to let children use their creativity in analyzing information and problem-solving

Resources:

- pictures,
- paper sheets,
- pencils,
- crayons,
- pc, interactive whiteboard,
- Google Earth app

Lesson Description (including context):

Each child receives the task of analyzing the geographic aspects of one of the six countries through some activities.

Activity 1

Each student registers the temperature of the city assigned to him/her by the teacher (San Mauro Torinese, Giannitsa, Boras, Ogre, Bialystok and Eger), for a week during the months of February, March and April. Pupils calculate the average temperature and draw bar graphs to compare the temperature of our city and those of the other five European cities.

Activity 2

Every student searches for numerical information about the country assigned to him/her and insert those data in a table where Italy and a second country are compared from a natural and geographic point of view.

The registered data refer to country area, inhabitants, the highest mountain, the longest river, the largest lake, average temperature, geographic coordinates and so on.

Activity 3

On online maps, every student finds his/her journey from San Mauro T.se to the European city they have been analysing. They also calculate the average travel time by car, considering the minimum speed in suburban roads (70Km/h) and the maximum speed in motorways (130Km/h) in Europe.

Differentiation:

- Pupils can participate to the different tasks by giving their personal contribution according to their own knowledge and skills.

Introduction:

In class students discuss and collect ideas and info on what they know about the six partner countries: geographic position, language, capital city, flags, numerical data, etc

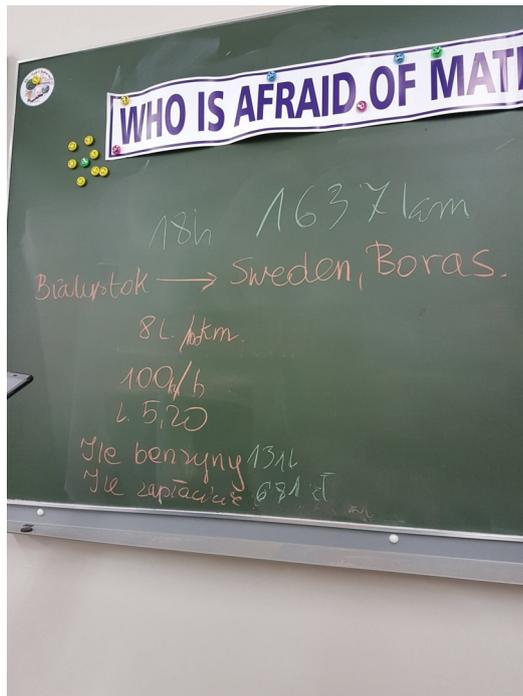
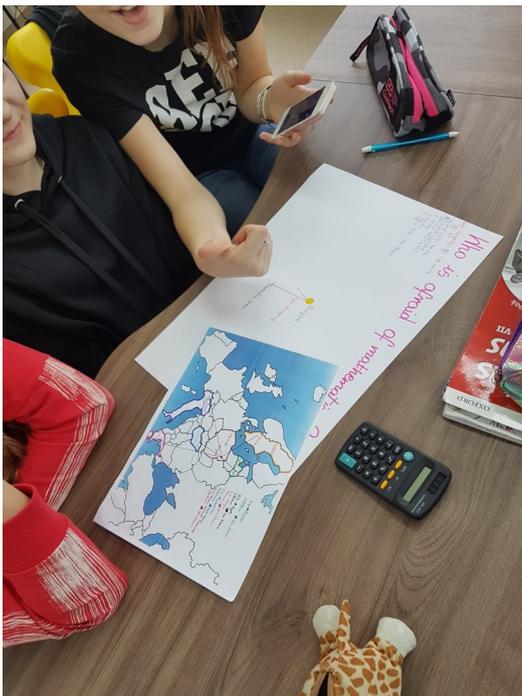
Main Lesson:

This unit is focused on activities that allow children to discover how to show compared data, drawing graphs and how to calculate average numbers. Moreover, pupils increase the knowledge of their country and other European countries through the development of research skills.

Plenary

The work of each student is collected in a folder and shown at the exhibition for parents at the end of the year. Grade 5th prepare a poster to display the Identity Cards of each town involved in the project

PHOTOS





Who Is Afraid of Mathematics?

$V = 120 \text{ km/h}$
 $\frac{200 \text{ km}}{120 \text{ km/h}} = 1,3 \text{ h}$
 $V = \frac{s}{t} \rightarrow \text{design}$
 $t = \frac{s}{V} = \frac{200 \text{ km}}{120 \text{ km/h}} = 1,3 \text{ h}$
 $V = 80 \text{ km/h}$

Cost of travel
Euro? ...
PLN? ...
7 Liters / 100 km

Eger
 t:?? s=200 km
 Gornice
 V=100 km/h
 $\frac{200 \text{ km}}{100 \text{ km/h}} = 2 \text{ h}$
 100 km/h
 L=5,20
 2h
 Me boggy - 89,61
 Me rapiaci - 69,72
 Oppe
 49,8 km
 6,5 h
 62 L / 100 km
 15,7,20
 Me boggy - 49,6
 Me rapiaci - 55,92

Turin
 17,5 km
 13,5 km
 10,5 km
 15,2 km
 Me boggy - 89,61
 Me rapiaci - 89,61

Boras
 16,5 km
 13,5 km
 10,5 km
 15,2 km
 Me boggy - 89,61
 Me rapiaci - 89,61

Poms
 100 km/h
 L=5,20
 2h
 Me boggy - 89,61
 Me rapiaci - 69,72

Maths in Geography
Erasmus+
Who Is Afraid of Mathematics?



L=5,20
 49,8
 26,4 / 90 zł
 Hungary, Italy
 $V = 100 \text{ km/h}$
 $S = 200 \text{ km}$
 $t = \frac{200}{100} = 2 \text{ h}$
 L=18,31
 9,51 zł
 4,520
 101,6 km

Hungary
 Eger
 Fiatopka
 = 11 km
 80 km/h? Fuel cost 5,20
 Hungary How much...

Gornice - Sweden, Dore
 8,6 km
 100 km/h
 L=5,20
 15,7 L
 69,72 zł
 Budapest - Hungary, Italy
 10 km
 100 km/h
 L=5,20
 Hungary - 49,6
 9,51 zł

Gornice - Bulgaria, Eger
 10,5 km
 100 km/h
 L=5,20
 Hungary - 49,6
 Me boggy - 89,61
 Me rapiaci - 55,92

Gornice
 $V = 100 \text{ km/h}$
 $\frac{200 \text{ km}}{100 \text{ km/h}} = 2 \text{ h}$
 100 km/h

