



Erasmus+  
Programme Your Future



## COMPUTATIONAL THINKING - LESSON SCRIPT

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**Lesson information:** Subject: GEOGRAPHY AND HISTORY  
Duration: 2 session x 50 minutes  
Grade: 3th grade of secondary school (students born in 2002)  
Age: 14  
Topic: Main cities in European countries

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**The curriculum specifications and requirements:** BLOCK I: PEOPLE AND ENVIRONMENT  
- Human activities and resources.  
- Our environment. Geography of Europe

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**The aims of the lesson:** Pupils will ...  
- ... research about population and economical figures related to countries involved in Erasmus project.

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**Previous knowledge:**  
- European Union components.  
- Erasmus project components.

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**The forms of work:**  
- Individual work  
- Team work

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**The methods of work:**  
- Guided solution of easier problems  
- Problem splitting in smaller problems  
- Brainstorms  
- Graphical analysis

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**Teaching aids:**  
- Computer classroom with access to the Internet (one computer for each student).  
- Moodle platform, that is a Learning Management System (LMS), used to provide students with links, worksheets, examples, and extra resources.  
- Teacher computer with projector and interactive board.  
- Program learning tool, from scratch.com.

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**The range of using ICT:**  
- Web search.  
- Saving maps from the Internet.  
- Map edition using computer programs.

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- The course of lesson:**
- **Teacher activities**
  - **Pupil activities**
  - **The schedule**
1. Introduction (5 min)  
Greeting the pupils, checking registry, explaining the aim of the activity, asking what they know about the European Union, and about the countries involved in this Erasmus project
  2. Which are the main figures in Social science? (15 min)
    - The teacher, through a guided process, explains what figures are relevant in order to define the main cities in a country.
    - Population, gross domestic product must be considered
  3. Search for information (30 min)  
Pupils will make a list of the main five cities of each of the following countries: Poland, Finland, Estonia and Spain. They will work in pairs. They will search for the information in the web. They will also look for maps showing those cities. The maps can show one single country or the whole continent. Students will choose what they decide.
  4. Programing (40 min)  
The students will create interactive programs showing the maps with the cities. The program will work as a game:
    - Firstly, the cities will be pointed in the maps, but their names will be hidden.
    - The program will show the name of the cities, and the player must click on the right city.One example is available on this link:  
<https://scratch.mit.edu/projects/150117576/>
  5. Evaluation (10 min).
    - Each team will play with the programs created by other teams.
    - The teacher will revise all of them, to check if their contents are right and if they work properly.

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- Specific information:**
- **Programs** [Scratch programming environment, from M.I.T.:](https://scratch.mit.edu)  
<https://scratch.mit.edu>
  - **Links** Offline scratch editor can be downloaded at:  
<https://scratch.mit.edu/scratch2download/>

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**Attachments:**

- **Worksheets**
  - **Programs**
  - **files necessary**
  - **Etc**
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