



Erasmus+
Programme Your Future



COMPUTATIONAL THINKING - LESSON SCRIPT

Author information:

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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: Different types of agriculture

The curriculum specifications and requirements:

BLOCK I: PEOPLE AND ENVIRONMENT

- Human activities. Economical sectors
- Different types of agriculture: developed countries vs. developing countries.

The aims of the lesson:

Pupils will ...

- ... research about the main characteristics of agriculture in developed countries, and the differences from agriculture in developing countries.

Previous knowledge:

- Economical sectors: primary sector.
 - Countries considered developed and countries considered developing.
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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.
- Image and text edition using computer programs.

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 Primary Sector, more precisely about agriculture, and what are developed and developing countries
2. Primary sector and levels of development in diferent countries (15 min)
 - The teacher will explain or revise the concepts listed above, in the introduction.
3. Search for information (30 min)
Pupils will make two lists:
 - One with the main characteristics of agriculture in developed countries;
 - Other one with the main characteristics of agriculture in developing contries.They will work in pairs, looking for the information in the web and in the text book. They will write the information in their notebooks.
4. Programing (40 min)
The students will create interactive programs showing the characteristics mentioned above. The program will work as a game:
 - The characteristics will be shown in tags.
 - The program will show two boxes, one for each kind of agriculture.
 - The players will move the tags to the right box.
 - The program will show the points that the players get.One example is available on this link:
<https://scratch.mit.edu/projects/150646071/>
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.

Specific information: Scratch programming environment, from M.I.T.:

- **Programs**
- **Links**

<https://scratch.mit.edu>

Offline scratch editor can be downloaded at:

<https://scratch.mit.edu/scratch2download/>

Attachments:

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