

- 1. Name of the project: Adventures of a little scientist
- **2. Subjects covered from STEAM areas:** Biology, Chemistry, Geography, English, Lithuanian language, Mathematics.
- 3. Target group (age range and size of the group): 10-13 years, up to 30 students.
- 4. Duration of the activity: 6 lessons
- **5.** Key words: biology, chemistry, geography, physics, mathematics, English and arts, gamification.
- 6. Key sentence describing context of the activity, followed by short description (200 words):

This is the creation of a board game. The proposal is to create a board game for pupils aged 10-13. The development of the game should interest pupils in the topics proposed in the 6 subjects and consolidate and reinforce their knowledge in the different scientific fields: biology, chemistry, geography, physics, mathematics, English, and arts. This game can be created and then played in pairs, in groups, or as a whole class, divided into separate teams. This project will help children to look at the learning process differently, stimulate their interest in the world around them, and develop competencies in communication, thinking, and cooperation.

7. Description of the activity environment, including the list of materials and tools needed:

The board game (design) requires tools (paper, scissors, markers, or colored pens), tablets (for collecting and selecting information), and multimedia.

8. Step by step, detailed description of the activity, including teaching and learning strategies:

Game description: creating a common game theme or problem question, assigning game development tasks, designing the game, and testing the alpha version of the game. The game board shows 6 islands, each associated with a specific scientific field. All scientific fields are relevant to the theme or problem question. For each island/area of science, questions related to the overall theme of the game must be developed. This task is carried out by different teams of students. Each team has up to 5 pupils. The pupils search for and select the most relevant information. The questions created (card design) are placed in a specific science room (game board). Each group of questions consists of 15 to 20 questions and detailed and reasoned answers. On one side is the question and on the other side is the answer. The development team must also create an overall design for the board that is consistent with the basic gameplay: each player/team rolls two dice in a row. One die indicates from which science "island" the player will have to draw the question. The other die, with points from 1 to 6, shows how many spaces forward the player's piece can move if the question is answered correctly.



If the question is not answered, the player/team remains in place. The game board contains boxes with volcanoes, rainbows, traps, and bridges (or other symbols that have meaning for the chosen game theme). This process of game design and play is a great way to motivate learning to learn and have fun together. Playing the game, you have created together. If more time is allowed for this activity (up to 10-12 lessons), it is also possible to offer each student the opportunity to create a complete version of the game (all the question groups, the design of the board game, and the rules).

9. Learning objectives/competencies:

Designing and playing such a game helped to engage students and help them to acquire and consolidate their knowledge in a wide range of scientific fields: biology, chemistry, geography, physics, mathematics, English, and the arts.

10. Evaluation/Assessment guidelines:

The project allowed students to look at the learning process differently, assess their knowledge, see the world around them in a different light and develop competencies in communication, thinking, and cooperation.

11. Lessons learned:

By selecting and formulating questions and answers in mathematics, chemistry, biology, and other subjects, students learn to use terms and concepts and to argue scientific claims.

12. Additional information/Links:













13. Contact person:

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