Scientix Lesson plan

# Title

Making math more attractive

# Author(s)

Ioannis Tsompanopoulos

# Abstract

In this project students with the guidance of their teachers will be involved in the creation of smart math exercises using the new technologies. (Etwinning project)Teachers will exchange ideas and collaborate with each other, bringing students closer to maths. Students will also learn the culture and civilization of other nations and with the use of new technologies they will come closer, exchanging ideas and opinions.Teachers will help their students to develop their knowledge and skills in the use of new technologies, in language, arts, communication but mainly in mathematics and will help them to see mathematics as a game, as something fun.Teachers and students will come closer by crossing country borders using the technology.

# Keywords

*Maths, Gamification.*

# Licenses

* **Attribution CC BY.**

# Summary table

|  |  |
| --- | --- |
| *Subject* | Art, Cross Curricular, Foreign Languages, Informatics / ICT, Language and Literature, Mathematics / Geometry, Music, Psychology |
| *Topic(s) within the subject* | *Making math more attractive* |
| *Key real-life topic* | The use of technologies for learning mathematics and how these can be loved by students through their enrichment by multimedia is one of the main goals of the project.My vision is that companies that create electronic games should create learning games for students and help them to escape from the addictive use of computers.The creation and the development of e-games for children should be of more concern to e-game makers and special attention should be given by global community.Many years ago in a computer with 8086 processor technology as I was playing a math game with operations I answered correctly and the speed of operations increased so I had to answer faster.Nowdays, I wonder why these games disappeared and how we get to allow our kids to be stuck in front of computers, playing addictive games without getting anything substantial and being locked in a virtual world. |
| *Age of students* | 15-18 |
| *Preparation time* | 2 weeks |
| *Teaching time* | 6 months |
| *Online teaching material* | *Kahoot, wordwall, Edpuzzle, Quizizz, Padlet, Google forms* |
| *Offline teaching material* | *School* book, notes to students on the use of the applications  |

# Integration into the curriculum

Students will transfer to games exercises that are taught in the curriculum in the classroom. The process will become more attractive for them and for all their classmates who will play these learning games!

# Aim of the lesson

The goals of the project are multiple.Students using distance learning platforms will come closer.Children in the age of covid19 will gain activities that will help them use technology not only for playing but also for learning, communication and collaboration.

# Outcome of the lesson

The project will help students to develop their skills which they, either have and ignore, or they do not know how to practice with yet. They will go through research and material creation processes, they will gain new learning practices and with the use of new technologies will come closer to the arts, music, languages and mathematics, as one of the goals is to enrich mathematics with the new technologies and creating clever playful math exercises.Students will learn about other cultures, they will learn to collaborate and to communicate, but the most important thing is that they will learn that communication and collaboration are not limited in the learning process

# Trends

1. Student Centered Learning: students and their needs are at the centre of the learning process.
2. Project-Based Learning: students get fact-based tasks, problems to solve and they work in groups. This kind of learning usually transcends traditional subjects.
3. Game Based Learning & Gamification: learning is mixed with games or with game mechanisms
4. STEM Learning: Increased focus on Science, Technology, Engineering, Mathematics subjects in the curriculum

# 21st century skills

*Students will become familiar with the use of computers. They will find in practice that it is possible to make educational games and through the use of new technologies they will come closer to mathematics.*

*Students will develop collaboration and communication using communication applications as well as their critical thinking in search of the best problem-solving process using computers.*

# Activities

|  |  |  |
| --- | --- | --- |
| **Name of activity** | **Procedure** | **Time** |
| **Quizizz** | Convert 10math exercises into quizzes and *Share and comment via padlet* | 6 weeks |
| **Kahoot**  | Convert 10math exercises into Kahoots and *Share and comment via padlet* | 6 weeks |
| **Wordwall** | Convert 10math exercises into wordwall and *Share and comment via padlet* | 6 weeks |
| **Edpuzzle** | insert questions in ten videos related to a math problem and *Share and comment via padlet* | 6 weeks |

# Assessment

*Students from each country will play the quizzes created by students from another country*

# Student feedback

*Share and comment via padlet*

Final task with google forms (questionnaire)

# About Scientix

Scientix, the community for Science education in Europe, promotes and supports a Europe-wide collaboration among STEM (Science, Technology, Engineering and Mathematics) teachers, education researchers, policymakers and other STEM education professionals. If you need more information, check the [Scientix portal](http://www.scientix.eu/home), or contact either the Scientix National Contact Point or Scientix Ambassadors [in your country](http://www.scientix.eu/in-your-country).