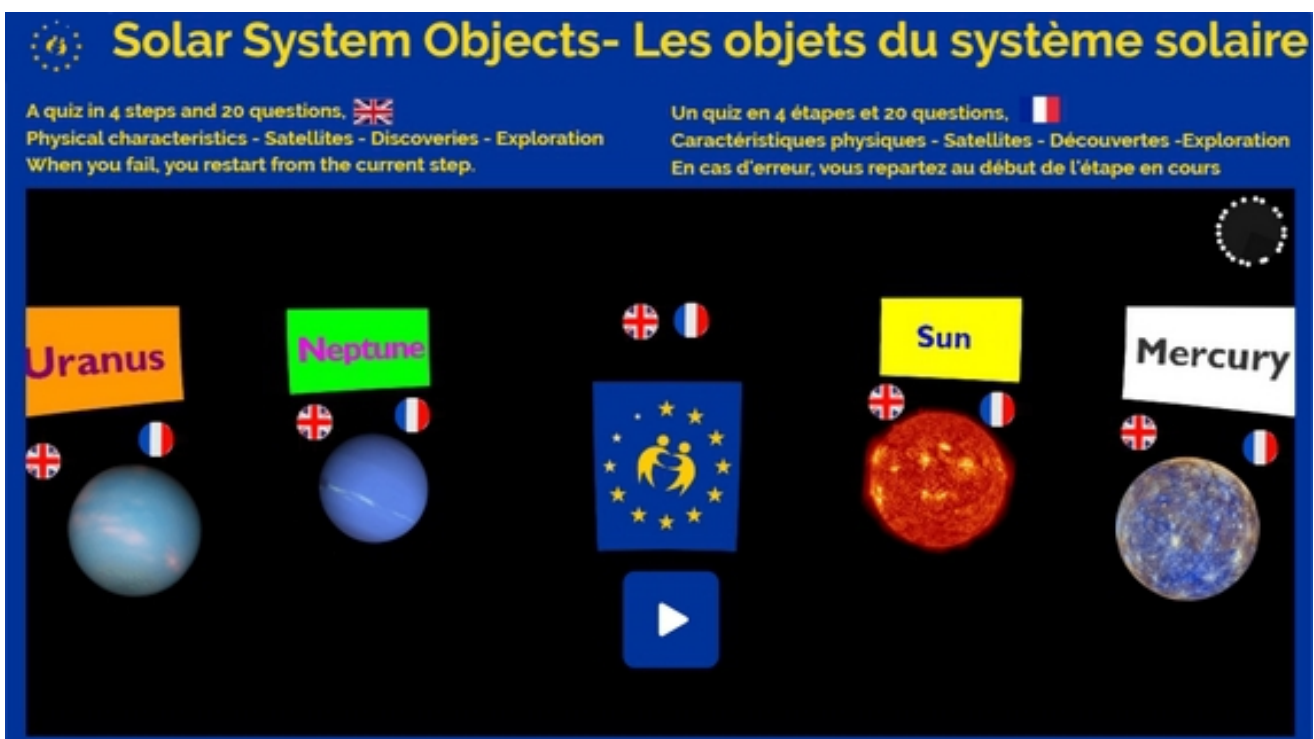


The 2020 STEM Discovery Campaign

Participants of SCIENTIX competitions are invited to blog about their activities for the 2020 STEM Discovery Campaign here!

Genius enough to escape from the solar system on... genial.ly?



A collaborative production on eTwinning project "360 Big European Solar Tour" in the STEM freestyle axis

A "side effect" of COVID19 in education is schools' closure. As a result, working with students online synchronously through a video conference is a big challenge. Among the issues that need special approaches are:

- holding students' interest
- offering feedback
- create and support interaction among teacher-students, and teaching material.

Shifting an online classroom to a "gaming platform" is a practice that confronts many of these issues. It boosts the students' interest and masks the teacher's aim to provide knowledge.

A well-designed game with a structure based on pedagogical strategies creates a tool easy to use it synchronously or asynchronously. Such strategies are students' collaborative involvement in the creation of the game, guided search, direct feedback.

Creating the game in the project

The partners in the eTwinning project “[360 Big European Solar Tour](#)” have worked on 360 panoramic photos to create games. With the photos, they have presented their classroom, their school, and their town. In addition, there were extra activities in 3 axes:

- [STEM](#)
- [European Citizenship](#)
- [Culture](#)

The schools were grouped in international teams that have a planet's name. We have used the distances of the planets from the sun to create a scale. Each school had measured its distance from the European Union's geographical center in [Westerngrund](#), Germany, where was supposed to be the sun of our teams in the project. According to the school's distance and to our scale, each school participated in a planet's team.

Our students on their teams were working on their planet's forums creating questions on the presentations of their partners. These questions were collected by the administrator of the project to create the games on [genial.ly](#)

The STEM game

For the STEM axis of our project, the approach was different. In February, our students had guided web-search in their class and had come up with info for their planet. Students had presented this in a variety of forms ([an example is about Uranus in comics](#)) in their planet's padlet which was tagged on a 360 photo in [genial.ly](#) The info that our students had collected was about planets characteristics and about astronomical observations and missions.

The Padlet board is titled "Uranus" and has a subtitle "360 Uranus tour". It features three main columns:

- INFORMATIONS** (Basic facts about the planet | Données de base sur la planète)
- SATELLITES** (Natural satellites of the planet | Satellites naturels de la planète)
- MISSIONS** (Probes, orbiters, landers | Sondes, orbiteurs, atterrisseurs)

Below the columns, there are three content cards:

- Card 1:** "8-Erikaiti-Petroupoli, GRC" with a link to a Pixton comic. The comic depicts a woman in a purple shirt standing in a room with planets hanging from the ceiling. Text in the comic says "Welcome to our tour in our solar system". Below the comic, it says "uranus erikaiti c3a Ρίξε μια ματιά στο κόμικ στην κατηγορί... pixton".
- Card 2:** "Satellites of Uranus are:Puck, Miranda, Ariel, Umbriel, Titania, ve Oberon.. by Sevde Numanoğlu Gazi Secondary School,Samsun. Until now, 27 moons have been discovered orbiting Uranus. They were named after characters from the works of William Shakespeare and Alexander Pope."
- Card 3:** A link to "https://solarsystem.nasa.gov/planets/uranus/galleries" and a partial image of the planet Uranus. Below the image, it says "Galleries | Uranus - NASA Solar System ... NASA's real-time science encyclopedia o... nasa solar system exploration".

An example of a padlet: students in Uranus team share info

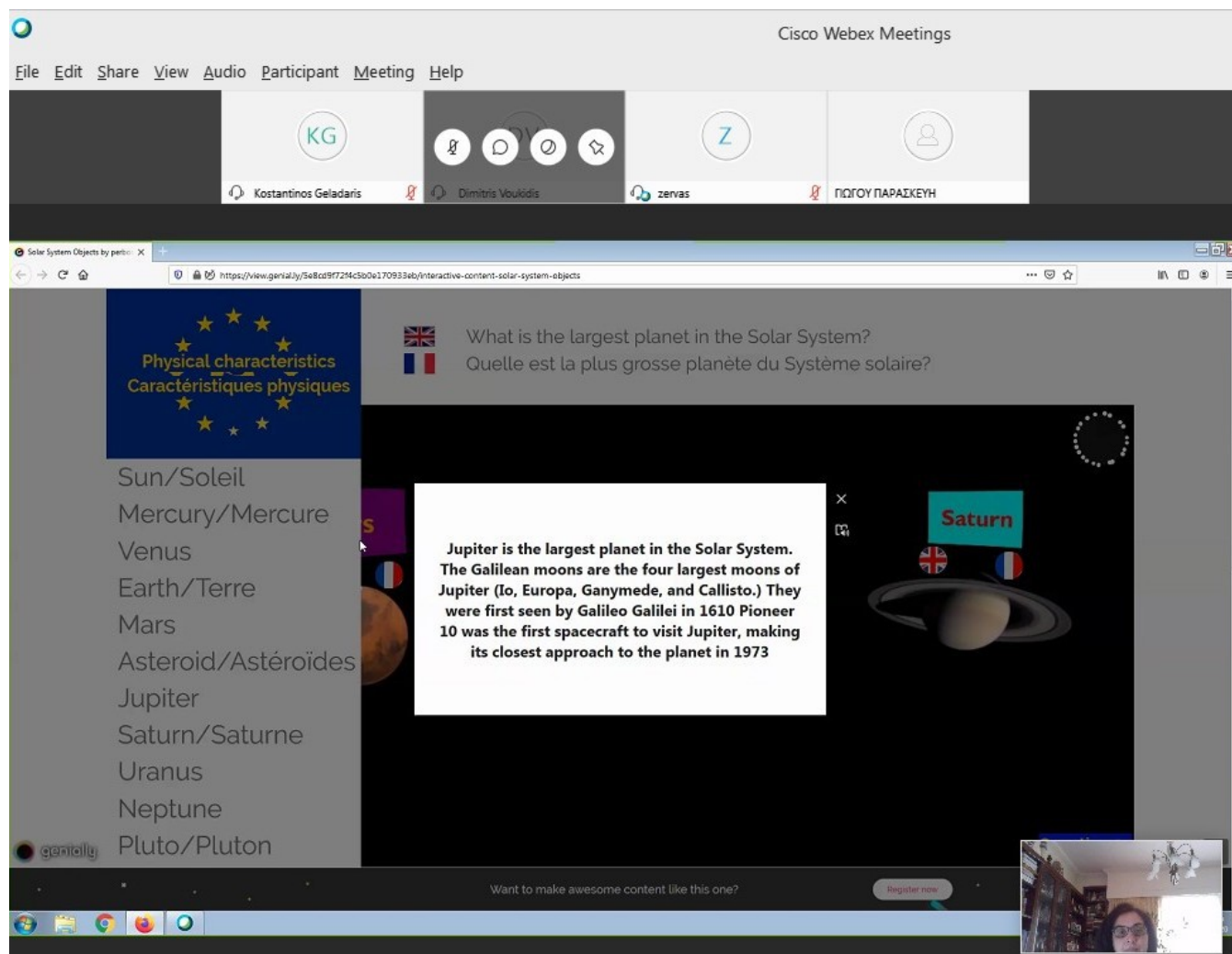
The administrator of the project had collected info from these padlets and he has created the game for the STEM axis of our project. The game is a quiz on 4 steps (Levels) with 20 questions about planets' physical characteristics, satellites, discoveries and exploration

The screenshot shows a Genially interactive quiz interface. At the top, there is a question in English and French: "What is the brightest object in the earth's sky? / Quel est l'objet le plus brillant du ciel terrestre?". Below the question, there is a large image of the solar system with labels for "Neptune", "Sun", and "Mercury". A mouse cursor is pointing at the Sun. On the left side, there is a list of celestial bodies: Sun/Soleil, Mercury/Mercure, Venus, Earth/Terre, Mars, Asteroid/Astéroïdes, Jupiter, Saturn/Saturne, Uranus, Neptune, and Pluto/Pluton. The interface also shows a "Question 01" indicator and a small video feed in the bottom right corner.

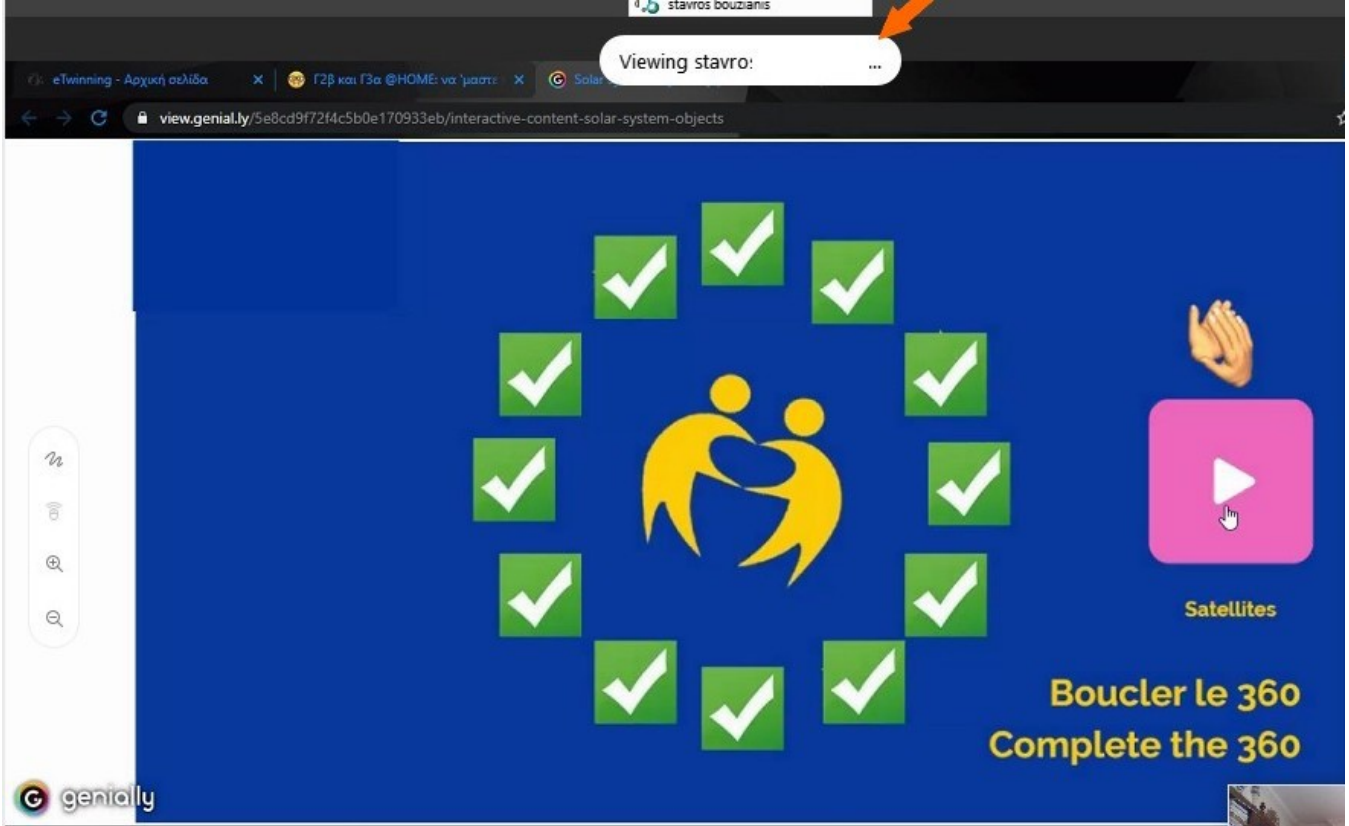
Playing the game

The next step was to play the game but our schools closed just when the game was ready. Many of the teachers needed time to organize their online classrooms and establish frequent communication with their students. The partner teachers, who had managed this, had played the game with their students online. Students' comments and photos prove that this was a hit.

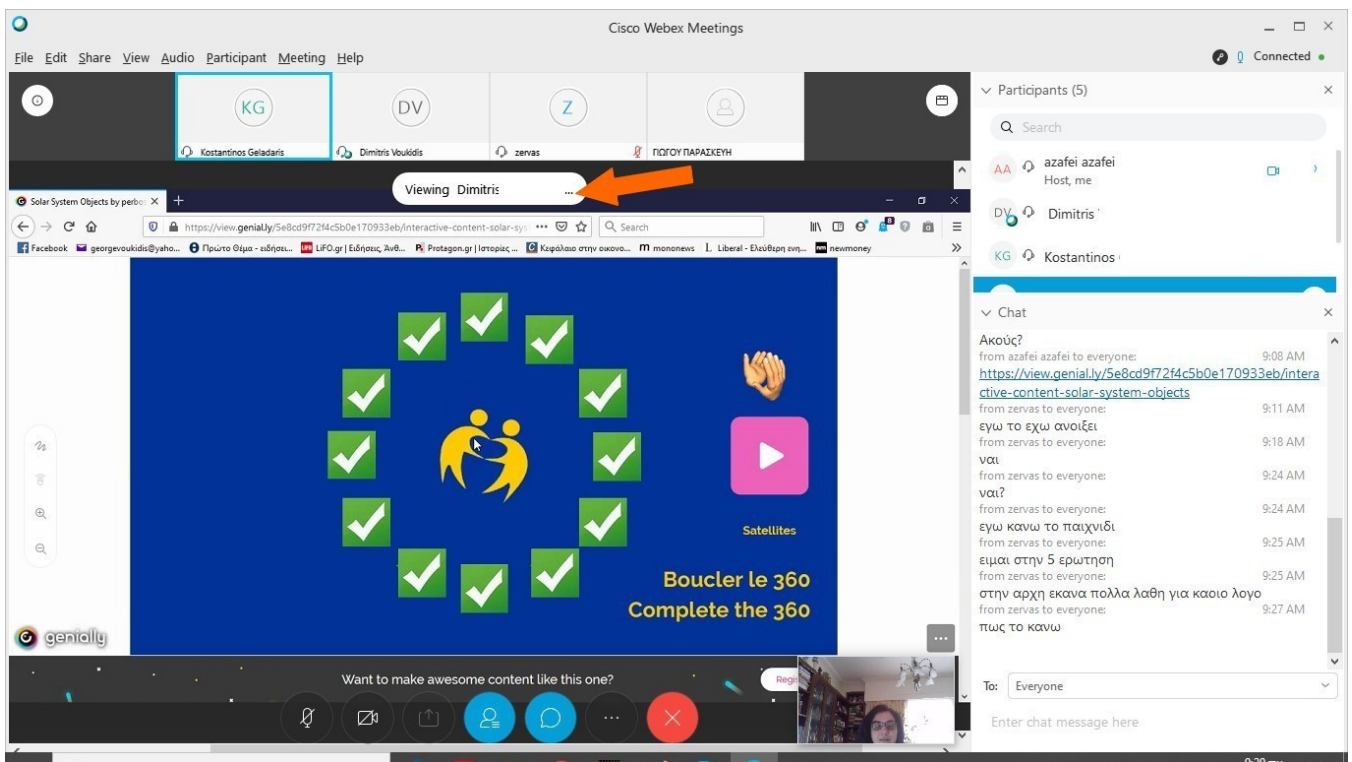
My class had managed to meet online on 28 April and had played the game, each student on his/her device. The teacher explained the rules and asked the students to share their screens to prove they had finished. After that, students started the game and they were using the chat for comments or to report their progress.



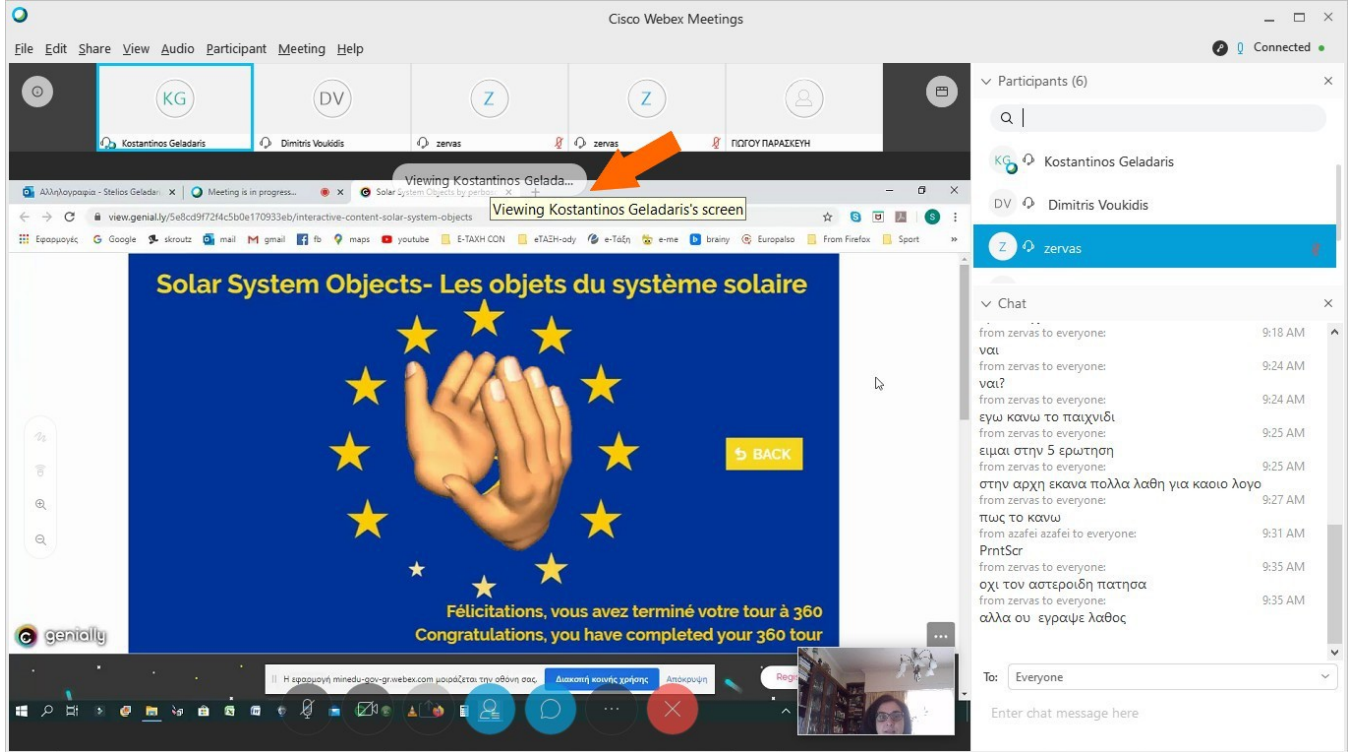
Kostas S. is sharing his screen while he is searching the info on the nodes of the planets to answer a question on "Physical characteristics" level of the game



Stauros has managed the "Satellites" level



Dimitris sharing his screen and comments on chat



The student who managed to finish the game first, shared his final screen while the rest were still working on the game. After some minutes, all had finished and we shared our impressions in chat.

The tricky point on the game is that every time you answer wrong in any of the levels, you return to the starting question of that level. This repetition contributes to the establishment of knowledge and it ensures that our students' answers were not given randomly.

We invite you to try our [game](#) and share it with your students and we would be thankful for some feedback in comments.

PUBLISHED BY



athanasiazafeiropoulou

ICT and Physics teacher in secondary Education in Greece [View all posts by athanasiazafeiropoulou](#) →

📅 10/05/2020 👤 athanasiazafeiropoulou 📁 Event, Inquiry Based Science Education, Learning, Teaching 🎮 GAMES IN CLASSROOM, online synchronous classroom, solar system game

SYSTEMIC

SAY YES TO STEM IN THE CLASSROOM



SYSTEMIC is Co-Funded by the Erasmus+ Programme of the European Union. The content of this webpage is the sole responsibility of the organiser and it does not represent the opinion of the European Commission (EC), and the EC is not responsible for any use that might be made of information contained.



powered by WordPress

Proudly