

Didactic Scenario

1. Title

A Mythological Trip into Space

2. Keywords

solar system, constellations, mythology, space

3. Basic Information

STEAM Subject: Technology, Art

Typical interaction time with the instructional scenario in teaching hours for in-school work: 3 hours

General description of the scenario:

<u>Phases</u>	<u>Stage</u>	<u>Time</u>
Our Galaxy	Warm-up activity	25'
Mythological Galaxy	Implementation	20'
Our solar system	Evaluation	90'

Age group: 8 years, 3rd graders Greek Primary School System

Estimated difficulty level:

Very Easy	Easy	Moderate	Challenging	Very Challenging
		X		

Teaching resources

Material: History book, History activity book, worksheets.

Expansion activity: cardboard, brushes, double clips, canvas, tempera paints, modeling clay, dental tools, laminating transparencies, laminator, scissors, glue.

School infrastructure: Computer connected to the internet, projector and projection screen, tablet computer with wireless internet connection.

Additional material from external sources/online tools:

ARTutor: application for mobile phones and tablets.

<https://play.google.com/store/apps/details?id=com.aetma.artutor3&hl=el&gl=US>

Creating a Conceptual Map.

<https://coggle.it/>

Our Solar System - Educational Video - Learning in a Different Way.YouTube

[https://www.youtube.com/watch?v=8Ewgh-](https://www.youtube.com/watch?v=8Ewgh-hLQAc&t=1s&ab_channel=%CE%9C%CE%B1%CE%B8%CE%B1%CE%AF%CE%BD%CE%BF%CF%85)

[hLQAc&t=1s&ab_channel=%CE%9C%CE%B1%CE%B8%CE%B1%CE%AF%CE%BD%CE%BF%CF%85](https://www.youtube.com/watch?v=8Ewgh-hLQAc&t=1s&ab_channel=%CE%9C%CE%B1%CE%B8%CE%B1%CE%AF%CE%BD%CE%BF%CF%85)

[%CE%BC%CE%B5%CE%BA%CE%B9%CE%B1%CE%BB%CE%BB%CE%B9%CF%8E%CF%82](https://www.youtube.com/watch?v=8Ewgh-hLQAc&t=1s&ab_channel=%CE%9C%CE%B1%CE%B8%CE%B1%CE%AF%CE%BD%CE%BF%CF%85)

"A Celebration in the Neighborhood of the Sun."YouTube

https://www.youtube.com/watch?v=vH-D8_mjGxU&ab_channel=Planitario Thessalonikis:

Interpretation: Charis Katsimichas, Lyrics: Simos Oikonomidis.

Wordwall

[https://wordwall.net/el/resource/1164699/%CE%B7%CE%BB%CE%B9%CE%B1%CE%BA%CF%8](https://wordwall.net/el/resource/1164699/%CE%B7%CE%BB%CE%B9%CE%B1%CE%BA%CF%8C-%CF%83%CF%8D%CF%83%CF%84%CE%B7%CE%BC%CE%B1)

[C-%CF%83%CF%8D%CF%83%CF%84%CE%B7%CE%BC%CE%B1](https://wordwall.net/el/resource/1164699/%CE%B7%CE%BB%CE%B9%CE%B1%CE%BA%CF%8C-%CF%83%CF%8D%CF%83%CF%84%CE%B7%CE%BC%CE%B1)

Stellarium

<https://stellarium-web.org/>

Canva: Digital creation tool

https://www.canva.com/el_gr/

SkyViewFreeAugmented Reality Application for Observing Stars, Planets, Satellites, etc. for Mobile Devices and Tablets

https://play.google.com/store/apps/details?id=com.t11.skyviewfree&hl=en_US

Digital information collection tool

<https://el.padlet.com/>

Differentiated Instruction for students of differing abilities and learning styles in the same class: N/A

Developed by: Gavriil Kolios

4. Educational Problem

The space and the solar system are fascinating topics for students, as they provide them with an opportunity to explore the world around them. Through learning about our solar system and its planets, students can understand our position in the universe, be inspired by its magnificence, and dream about what the vast cosmos may hold for us. Students will become familiar with the planets and their orbits around the sun, develop their curiosity, study

constellations, and construct solar systems. There is a connection with the History lesson in the 3rd grade of primary school, helping students understand the evolution of human knowledge, science, technology, and culture. The use of digital tools suitable for the students' age will be incorporated, promoting active participation and engagement for all. Students are familiar with the use of these specific tools and have developed the necessary skills for using online and computer applications, as well as mobile device applications.

5. Learning Objective (-s)

1. Connect Greek Mythology with our Galaxy.
2. Understand the composition and position of our solar system.
3. Identify the planets and the deities of which they have been named after.
4. Develop digital skills, fine motor skills, communication skills, collaboration skills, and cultivate their critical thinking.
5. Learn in both a pleasant and creative way.

6. Phases of the Scenario

Phase 1

Title: Our Galaxy

Indoor	Outdoor	Mixed
		X

Phase duration in minutes: 25'

Detailed description of the scenario phase:

The lesson will initially take place in the school classroom. The students are divided into groups (cooperative teaching method), and each group is provided with a tablet that has the mobile translate application ARTutor installed. (<https://play.google.com/store/apps/details?id=com.aetma.artutor3&hl=el&gl=US>) and an augmented worksheet (the students are not aware of it). They observe the worksheet (stimulus), and a brainstorming follows regarding the images presented on it. Record the students' ideas through the application <https://coggle.it/> and create a conceptual map. Subsequently, students are asked to scan the QR code with the tablet, located on the back of the page. After transitioning to the application ARTutor, they scan the central image and watch the video." <https://www.youtube.com/watch?v=8Ewgh->

hLQAc&t=1s&ab_channel=%CE%9C%CE%B1%CE%B8%CE%B1%CE%AF%CE%BD%CE%BF%CF%85%CE%BC%CE%B5%CE%BA%CE%B9%CE%B1%CE%BB%CE%BB%CE%B9%CF%8E%CF%82 (Our Solar System - Educational Video - Learning in a Different Way)

Afterwards, a transition to the computer laboratory takes place, and the song "Acelebration in the Neighborhood of the Sun" is heard (https://www.youtube.com/watch?v=vH-D8_mjGxU&ab_channel=PlanitarioThessalonikis, Interpretation: Charis Katsimichas, Lyrics: Simos Oikonomidis, the students are touring space through the application <https://stellarium-web.org/Stellarium> (they see and get to know the planets from close up, they learn about constellations, they are shown the constellations which are connected to mythology) and afterwards are called to connect and correlate the names of the planets with deities from Greek mythology, as well as to contemplate on constellations in the plenary session of the lesson. Assessment sheet for the order of the planets in our solar system, is filled out collectively or individually

Alternative electronic activity

<https://wordwall.net/el/resource/1164699/%CE%B7%CE%BB%CE%B9%CE%B1%CE%BA%CF%8C-%CF%83%CF%8D%CF%83%CF%84%CE%B7%CE%BC%CE%B1>

Activity sheets: Picture 1 (starting point), oral questions, picture 2 (evaluation form)

Phase 2

Title: Mythological Galaxy

Indoor	Outdoor	Mixed
		X

Phase duration in minutes: 20'

Detailed description of the scenario phase:

Assessment Sheet on Knowledge of Deities Associated with Our Solar System, to be filled in by groups.

Students, utilizing the digital tool Canva and the opportunity to create a digital class provided (students have enrolled in the class with the consent of parents), will use the application Magical Media (an Artificial Intelligence application for converting text to images) to create images depicting the deities of mythology associated with the planetary system.

Subsequently, student groups are required to choose a constellation linked to mythology and showcase it using the Stellarium application (option to use Stellarium at home or the mobile app Star View Lite, in the inverted class).

Activity sheets: Links and instructions for the implementation of the activity.

Phase 3

Title: "Our" Solar System

Indoor	Outdoor	Mixed
		X

Phase duration in minutes: 90'

Detailed description of the scenario phase:

The students go out to the yard, where the teacher has designed a path-orbit for each planet. The students, after randomly receiving the images they created (printed and laminated), are called upon to place them in the correct position for each planet-deity and then simulate the movement of the planets around the god Sun.

The teacher has prepared corresponding cards with planets. The students are divided into 2 groups. The first group takes the cards with the planets, and the second group takes the cards with the deities. After dispersing in the courtyard, they are called upon to find each planet's deity and each deity's planet.

Return to class, where using cardboard boxes that are painted inside to create Chaos and the stars (Milky Way), students hang the deities with strings (the length of each string indicates the distance from the Sun) and stick the Sun deity to the side inside of the box.

Finally, from the constellations they chose (as a group), they create the constellation using Canva or construct it using pieces of cardboard that were not used, using plasticine, and toothpicks.

Students are expressing their opinions and impressions through padlet

<https://padlet.com/GavKol/padlet-nwyqaeystgt0vce>

Activity sheets: Our Solar System deities (picture 3), deities and planets, indicative worksheets with deities and planets (picture 4).

7. Evaluation Methodology

Initial: The method of discovery through the guidance of the educator is employed using the starting point sheet and the conceptual map.

Formative: Continuous assessment through questions, worksheets to identify students' achievements.

Final: Experiential activities (constructions) and activities in informal environments (experiential activity with tracks and card games in the yard).

Evaluation of the scenario.

Padlet.

<https://padlet.com/GavKol/padlet-nwyqaeystgt0vce>

8. Additional Resources for the teacher

Folder: A Mythological Trip into Space_ Additional resources for the teacher