

ARISTARCHUS

Artistic Reality In School educaTion: enActed, Reflective and Collaborative learning with the HUman orrery Space

Project overview and key objectives

The ARISTARCHUS project is a collaboration among three universities and one non-profit organisation: *University of Cergy – Project Coordinator (France)*, *University of Aegean (Greece)*, *CARDET (Cyprus)*, and *University of Munster (Germany)*. The project aims at building on the Human Orrery, a 3D kinesthetic model of planetary motion in the inner solar system, to engage *primary and secondary students* in interdisciplinary and inclusive STEAM activities. Its specific objectives are:

- Exploration of fundamental laws of physics and concepts of mathematics in both an attractive and meaningful way.
- Development of learners' direct and augmented experience scientific knowledge in STEAM needed to engage in the modern scientific world.
- Improvement of both the learning in an interdisciplinary STEAM context and the well-being and social-being of the learners.
- Enhancement of the scientific process skills of learners.

Project update

Partners have successfully completed the **first piloting phase** in elementary and secondary schools in France, Greece, Cyprus, and Germany. More than 25 teachers and 300 students were involved in hands-on STEAM experiences with the use of the Human Orrery map. The lessons were mostly about investigating map elements and learning how years work on other planets and why we have day and night.

Students answered an online questionnaire before and after the implementations to observe potential learning or attitude shifts. The positive feedback from participating teachers emphasizes the effectiveness of the map in engaging all pupils, especially those with fewer possibilities.

2nd teacher training in Munster

From July 24 to 28, 2023, the University of Munster in Germany hosted the **second and final training** as part of the ARISTARCHUS project. During the training, teachers could elaborate on their experience of the first year of piloting, discussing milestones and challenges, and sharing practices and teaching material. Furthermore, participants were introduced to the Augmented Reality application and allowed to explore its features and create new instructional content. The first version of the AR application will be ready by the end of the year. This will allow the second year of school implementation to begin in January.



What's next?

Until the start of the second school implementation phase in January, the University of Aegean will be revising the Methodological Framework to meet the needs of the teachers. In parallel, CARDET, in collaboration with the partners, is developing the **project's e-learning platform**, which will hold both content for teachers and students to facilitate self-directed learning. In particular, teachers will have at their disposal resources and audiovisual material to organise and deliver STEAM workshops using the Human Orrery. On the other hand, students will have access to gamified content related to the Solar System.

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For more information, visit the project website: www.aristarchusproject.eu

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