Focusing on: Including Space in Education

With the idea of fostering a young, competent and wide-ranging space community, the Science Education Department has been working for years on integrating the topic of space in education, advocating for the important role it plays in schools’ STEM curricula. With past, current and future projects, EUN strives to inform students and teachers alike about current research and issues related to space sciences and the numerous career opportunities offered by this field, and to show them that not only is space knowledge exciting but also highly demanded. The projects mentioned herein developed a large array of free high-quality resources such as learning scenarios, online training, workshops and formative events, and various digital tools, all easily adaptable to different STEM disciplines and languages. The ultimate goal is to show students the importance and wonders of space and astronomy, and train and motivate some students in pursuing space-related careers.

Science Education Department Focus

The Science Education Department at European Schoolnet aims to encourage more students to follow Science, Technology, Engineering and Mathematics (STEM) studies and go into STEM careers, and more importantly, ensure all students understand the key role STEM has in our lives.

To achieve this, we support our Ministries of Education by working with teachers, industry partners and other STEM education stakeholders, offering professional development opportunities, carrying out validation pilots, curriculum analysis and dissemination of good practices.

We are currently involved in over 15 projects and in each issue of the Science Education Department Focus we will highlight a service/area we work on.

Fostering a young, creative and inclusive European space community

The SpaceEU Project implemented an exciting Space Outreach and Education programme to capture the interest of young people in STEM fields and encourage them to choose space-related careers. After a 2-year run, European Schoolnet has delivered its final outputs listed hereafter:

- The Teacher Training Programmes, a collection of 10 co-created educators’ face-to-face and online training programmes
- The Pre and Post Self-Assessment questionnaires are available under spaceEU Self-Assessment Tools
- The “Our Fragile Planet” MOOC finished but it is still open for self-study
- The “Engage with Space Toolkit” a collection of space centred activities, which remain open
- The final event “Using Space in Education” was organised and is available online.

Space Awareness offered a series of complementary activities and resources to inspire students from 8 to 18 years old, primary and secondary school teachers, teacher trainers, science educators, and families. Space Awareness focused on four categories related to major global issues and current European space missions:

- Our wonderful Universe
- Navigation through the ages
- Islamic heritage: the journey of the ideas

The project ended in 2018 but all the resources are still available on the website. More information on the “Report on entry-points for space topics in the curriculum”.

Over
The Schools Tune Into Mars MOOC was developed for teachers to bring Mars Missions into their classrooms using NASA's InSight mission data. The first successful run of the MOOC was executed in May-June 2020, and now the course remains open for self-guided learning.

After the MOOC, participants had a chance to submit their final lesson plans to be published among STIM pedagogical resources. The project team has revised 226 submissions, and 33 best lesson plans were chosen to be published as ready-to-use pedagogical materials.

Furthermore, STIM organized an online event on the 31st of October, including interactive sessions and rotating workshops which aimed to present project’s results developed so far and provided teachers with inspirational activities about space missions which can be integrated in the classroom. Examples of the activities presented during the event are available under the Pedagogical Guide.

Eleven Lead Teachers from across Europe joined the Aerospace in Class Project and are developing Learning Scenarios that integrate Airbus Foundation Discovery Space resources in the classroom (targeted at children 8-12 years old). The Learning Scenarios will be shared soon on the project web page once finalised.

Launching on 15 February 2021, the Aerospace in Class MOOC will guide teachers to create their own Learning Scenario with tested materials from the Aerospace in class project. They will hear best practices from the project’s Lead Teachers and learn about all the knowledge and skills needed to engage students with aerospace subjects.

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> More information
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