



**Fostering a young,
creative and inclusive
European Space Community**

SpaceEU Teacher Training Programmes

“Understanding STEM”

Country:	Malta
Organization:	Secretariat for Catholic Education
Target audience:	In-service teachers in middle school
Place:	Face-to-face
Period of implementation:	Feb-May 2020

Course description

Introduction

This training programme has been developed in the framework of the spaceEU project. Three successive sessions were run with about 15-20 teachers in each group. Each session is 1.5 hours long.

Teachers will learn:

- What STEM is
- How to adopt STEM in their teaching and learning
- How to apply a cross-curricular approach in STEM

Main Course description

1. Description:

The teachers attending the three sessions might be new to STEM or find it difficult to apply STEM in their teaching approach for the different subjects which they teach. For this reason, the workshop will inform how it is possible to use creativity and a variety of ideas to apply STEM in everyday lessons. They will be shown concrete project ideas and lessons that were implemented successfully over recent years through various collaborations with different NGOs locally, local and European opportunities and/or projects done by the Physics Department in Catholic Schools in Malta.

Teachers will then be engaged in group work to look into present and future STEM jobs available locally and globally. They reflect on their current practice in education to enable their students to take on these jobs in life.

Throughout the workshop teachers will be reminded or introduced to the portals of spaceEU, Scientix and Europeana.

2. Content:

- Aims and Introduction
- Background on STEM
- Module 1: STE(A)M in teaching and Learning + Dance
- Module 2: Introduction to STEM Careers locally / globally
- Module 3: Workshop on STEM Card Games + use of QR Code/ Google Lens
- Sharing and Conclusions

Follow-up

An email is shared with participants for any feedback, further information request or support to be able to implement the shared or similar ideas.

Training materials

Schedule and structure

A PowerPoint presentation is prepared to facilitate the session with the following items:

- Aims and Introduction (5 mins)
- Background on STEM (5 mins)
- Module 1: STE(A)M in teaching and Learning + Dance (30 mins)
- Module 2: Introduction on STEM Careers locally (5 mins)
- Module 3: Workshop on STEM Card Games + use of QR Code/ Google Lens (30 mins)
- Teachers will use groupwork in this workshop and look into 5 different STEM Space Careers and reflect on these questions:

- ‘What are the strengths of our educational system to enable uptake of these careers?’
- ‘What are the limitations in our educational system to hinder uptake of these STEM careers?’
- ‘What skills can we pass on for these STEM jobs?’
- Sharing and Conclusions (15 mins)

Resources and materials description

- PowerPoint presentation
- Space Card Game
- Document with list of questions for Workshop in session 2

Links to resources and materials

1. PowerPoint:

https://stfrancissecondaryschool-my.sharepoint.com/:p:/g/personal/smaggipulis_sfssliema_edu_mt/EQa2gYNBCGhKIJ3NNvuRSjgB_S8DikLLhTR4oB2GLVkeVg?e=3SbCKI

2. Forces Dance

https://stfrancissecondaryschool-my.sharepoint.com/:p:/g/personal/smaggipulis_sfssliema_edu_mt/EaAZaGjuRCZDneYUJioJG4UBuOP3LA_PG2FOchn8hcetZw?e=aBrPwl

3. Space Card Game:

http://www.space-awareness.org/media/booklets/files/SpaceCareers_SpaceAwareness_Booklet_red.pdf

<http://www.space-awareness.org/en/careers/teaching-material/introducing-space-careers/>

4. List of questions for teacher workshop:

https://stfrancissecondaryschool-my.sharepoint.com/:b/g/personal/smaggipulis_sfssliema_edu_mt/EU5O5MT0YTtDqH2rIleNoHoBSITHIoUa6wWTjH6TcNQAKQ?e=DtHPMn

