

# Let's STEMulate the Space

## About the project

Students plan to build a base on the Moon. First they will have to gather facts about our natural satellite's atmosphere, geology, gravity and realize how different the lunar environment is from the one on the Earth. During online meetings they determine what is necessary to maintain life on the Moon base. They organize international groups of specialists from different schools to work on different aspects connected with the colonization of the Moon.

## Aims

- . to improve STEM knowledge,
- . to improve problem solving skills,
- . to develop creativity and the ability to work in teams
- . to develop language and computer competences,
- . to develop interdisciplinary approach

## Work process

Design team:

Students will work on issues related to the design of the lunar buildings. They are going to make drawings, plans and 3D models. They will define what construction materials will be used.

Energy supply team:

Members of these team will try to find the best way of providing energy. They have to learn about renewable energy technologies and try to choose the most suitable which can be implemented on the Moon.

Food team:

The purpose of this team is to find sources of food and water. Their task is to find a new technology in nutrition for feeding people on the Moon.

Oxygen team:

What can be a source of oxygen in the Moon. How can we use our chemical knowledge for extracting oxygen from Moon Rocks. How efficient is this reaction.

Other teams will be created to deal with other problems such as gravitation, cosmic rays, recycling, etc.

## Expected results

1. The final result is a comprehensive presentation of lunar base, showing the achievements of all the students involved.
2. To promote the students' knowledge about the Universe,
3. To develop the students' creativity and to increase their interest and curiosity for STEM subjects,
4. To help them gain theoretical knowledge which they can later use in their future profession,
5. To develop communicative and collaborative skills,
6. To improve ICT and language skills,
7. To awaken a future scientist,
8. To create a web site including videos, photos, pictures, drafts, models, presentations, etc.