

Lesson Scenario

no.6

BASED ON THE STEM
LEARNING CONCEPT AND
METHODS OF NON-FORMAL
EDUCATION

ABOUT

The STEM concept is an educational idea concerning the subjects of Science, Technology, Engineering and Mathematics. Rather than dividing them into separate curriculums, as in the traditional system, the new concept focuses on an interdisciplinary approach. This way promotes finding connections and is more in touch with modern labour market.

The STEM approach is based on activating pupils in the classroom and providing a "hands-on" experience which enables young people to learn based on their own findings. This project based style creates also a chance to develop soft skills and practice cooperation, group work and problem solving abilities. Combining the STEM idea with non-formal learning methods promotes self-awareness about personal development, builds confidence and, above all, fosters motivation through curiosity.

MATCHBOX ROCKET LAUNCHER

Students build mini-rockets using matches and tin foil. Next they try their best at some target practice.

For whom?	6th / 7th Grade
How much time do you need?	45 minutes
What will you learn?	Concept of an exothermic chemical reaction Parabolic trajectory Forces affecting the flight path of a projectile
What soft skills will you develop?	Precision and focus on details Competing in teams Drawing conclusions
What do you need?	Box of matches per group Roll of tin foil Lighter Targets to aim at

INSTRUCTIONS

ROCKETRY BY BUBBLES

01.

Divide the class into small groups

02.

Prepare the rockets by rolling matches tightly in tin foil on the egnighting tip side

03.

Groups experiment with launching the first rockets by heating the tip in the foil

04.

Prepare some targets to aim at

05.

Groups compete in shooting for the targets

06.

Discuss the forces that influence the flight of your rockets

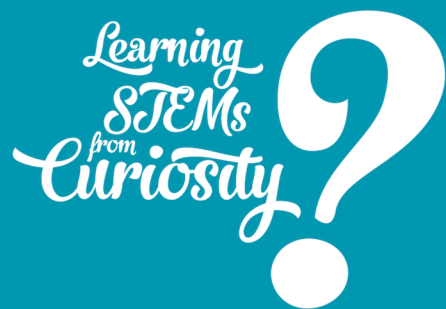
This lesson scenario was prepared by the participants of an Erasmus+ Youth Exchange Project titled Learning STEMs from Curiosity.

Participating Organizations:

Stowarzyszenie Przyjaciół Szkoły Podstawowej nr 1 w Barczewie

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For more information and resources please visit the project website by scanning the QR code below.



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