

Lesson Scenario

no. 7

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.

AIR-POWERED VEHICLE RACE

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

For whom?	7th / 8th Grade
How much time do you need?	2 x 45 minutes
What will you learn?	Newton's laws of dynamic Friction Storing and releassing energy
What soft skills will you develop?	Problem solving Creativity Group roles Task division
What do you need?	Balloonnss Empty plastic bottles Cardboard Bottle caps for wheels Hot glue and glue guns

INSTRUCTIONS

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01.

Divide the class into small groups

02.

Each group prepares a design of their vehicle

03.

Experimentations and design refinement

04.

Each group works on the visual side of their vehicles

05.

Let the race begin!

06.

Discuss the forces that influence the effectiveness of your vehicles

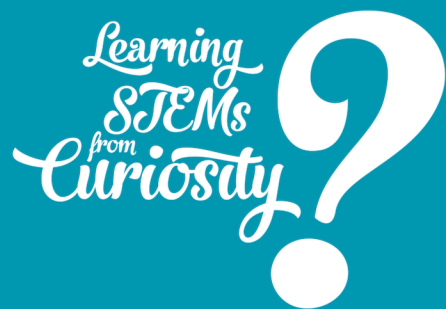
This lesson scenario was prepared by the participants of an Erasmus+ Youth Exchange Project titled Learning STEMs from Curiosity.

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.



Co-funded by the Erasmus+ Programme of the European Union

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