



VYTAUTAS  
MAGNUS  
UNIVERSITY  
M C M X X I I

# STEAM as transformative education

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# STEAM as non-formal education

- **‘STEAM institutions’ in Kaunas**



Technical Creativity Centre for Schoolchildren



Education centre in Kaunas Fortress Museum



EDULAND [Innovative Education Platform]

- **STEAM projects / events for schools**



# STEAM open access centres 2019–2021

**STEAM methodological centre in partnership with university (3 in total) –**  
Vilnius, Kaunas (Science Island), Klaipėda.

**STEAM regional centre (7 in total) –**  
Alytus, Marijampolė, Panevėžys, Šiauliai, Tauragė, Telšiai, Utena.

## STEAM competences

- Scientific inquiry
- Collaboration
- Communication
- Creativity, innovation
- Citizenship



**Transformation**

# STEAM: coming to the school

## -2015-

### ‘STEAM school’-

- strategic management;
- partnerships;
- curriculum, extracurricular activities;
- human resources;
- infrastructure;
- self-assessment.

### National network of STEAM schools:

- 14 (4 schools in Kaunas),
- 94 candidates (in Kaunas + 6 schools, 3 kindergartens, 2 institutions of non-formal education).

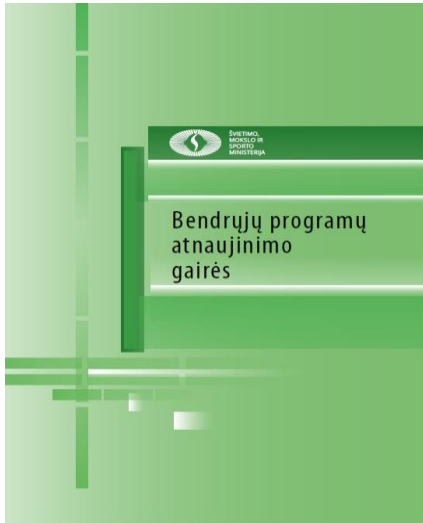


# STEAM teacher: a study programme at the Vytautas Magnus University – 2018–

## Structure of the study programme (240 ECTS):

- Artes Liberales
- Pedagogy
- STEAM didactics
- Subject studies –  
**2 from 6** [ biology/ chemistry/ physics/ mathematics/ ICT/ technology]
- Practice at the school (3)

# New National Curriculum 2018–2022



- Priority of competences
- Scientific approach
- Real-life contexts (SDGs)
- Action for social goals
- Personalization

## A pilot project – **Science curriculum for 5–8 grades**

- since 2017 – 19 schools (4 schools in Kaunas)
- since 2018 – + 60 schools (7 schools in Kaunas)



## Real life contexts – SDGs

- Health, healthy living – **SDG 3**
- Biodiversity – **SDG 15**
- Prevention of climate change, sustainable energy – **SDG 7, 13**
- Responsible consumption, saving nature resources – **SDG 12, 6, 14**
- Advanced technologies, innovation – **SDG 9**

