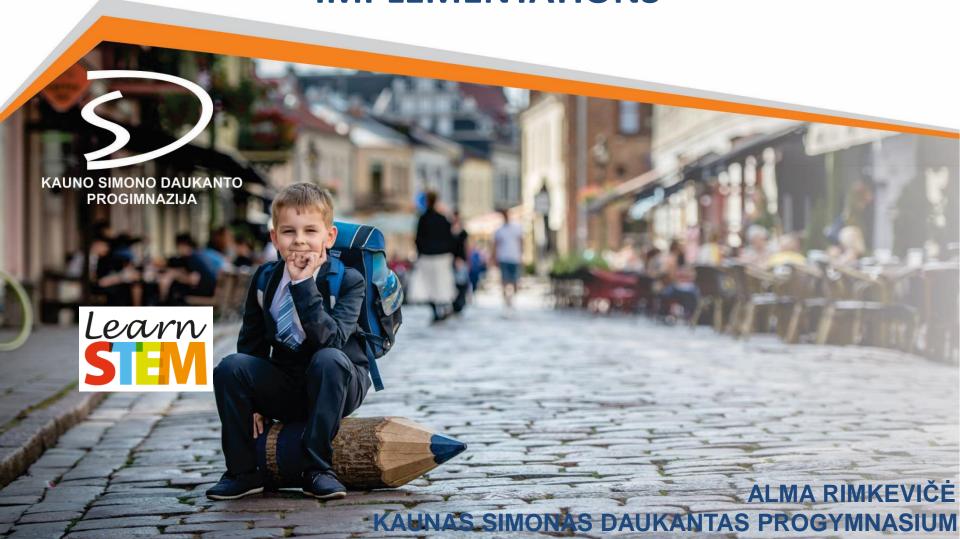
# INNOVATIVE (LEARN) STEM EDUCATION IN LITHUANIA: EXPERIENCES FROM IMPLEMENTATIONS





## KAUNAS SIMONAS DAUKANTAS PROGYMNASIUM: PROGRAMMED FOR SUCCESS





#### **FORMULA FOR SUCCESS**

- ➤ I know what I want, why I want it, and how I will achieve it;
- ➤ I am personally responsible for my future and my results;
- School is my first working place;
- > I always know where to get help.





#### **LEARN STEM PEDAGOGICAL MODEL**

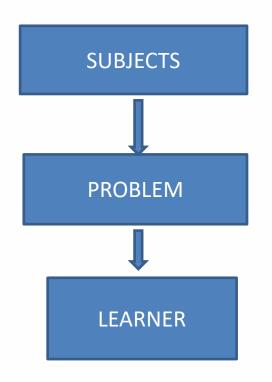


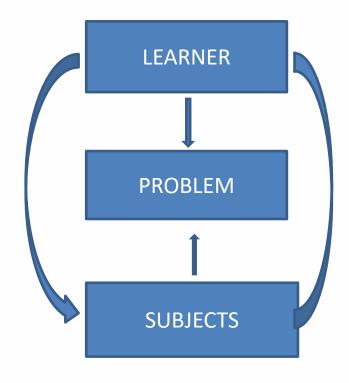
http://learn-stem.org/model





#### **CURRICULUM + LEARN STEM MODULE**















aims to ensure and harmonize a learner's safe functioning between the two systems: formal and non-formal education, taking into account his/her interests, and creating an effective transition between these two education systems in order to ensure an effective process of personality growth.









### PROBLEM BASED PROGRAMME OF INTEGRATED ACTIVITIES **4X4**

This program is designed to strengthen the processes of a learner's personal development. The program consists of four closely related strands.

#### INTEGRATED PROGRAMME OF NATURAL SCIENCES

#### **DISCOVER. EXPLORE. REFLECT. SHARE.**

This programme encourages learners to explore the world outside the classroom, to find a field of interest, to decide on the problem that might be interesting to examine, to apply previous knowledge as well as to look for new ways so as to solve it, to share the results with others, get feedback and proceed.





### INTEGRATED PROGRAMME OF MATHEMATICS AND ANALYTICAL THINKING <u>CHECKMATE</u>

This program is designed to increase learner's interest in mathematics as well as to develop his/her analytical and strategical thinking while solving real-life problem based problems.

#### INTEGRATED PROGRAMME OF NATURAL SCIENCES

#### **A BOILER SUIT**

This program encourages learners to explore the world around, to find out more about nature, its essential principals, to experiment and to come up with different ways out for the existing problems.







### INTEGRATED PROGRAMME OF NATURAL SCIENCES AND ROBOTICS

This integrated program uses robotics as the means to solve various problems in the field of natural sciences. What is more, it teaches learners computational thinking and soft skills that might be easily transformed to their daily life.

### INTEGRATED GERMAN AND BIOLOGY PROGRAMME CLILIG@LITAUEN

This integrated program implements hands-on learning and encourages learners to explore, to test and to create.





#### **5 ASPECTS OF LEARN STEM IN OUR LESSONS**

Here some examples from our daily school life.





#### **GERMAN AND BIOLOGY LESSONS**







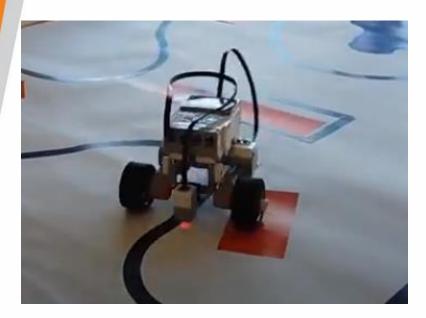


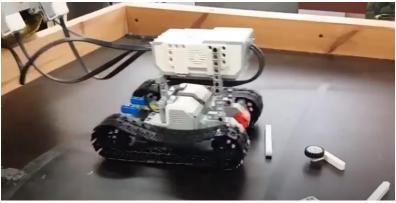




# INTEGRATED NATURAL SCIENCES AND ROBOTICS LESSONS







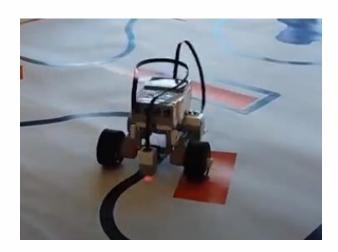






# INTEGRATED NATURAL SCIENCES AND ROBOTICS LESSONS















# PROBLEM BASED INTEGRATED LESSONS 4x4













#### **PRACTICAL KNOWLEDGE**















#### **SOCIAL STEM EDUCATION**



#### PROJECT "HAPPY WATER"













Distilluotas H <sub>2</sub> 0	Genamas H <sub>2</sub> 0	Vininas H <sub>2</sub> 0	Орено нуо
0,07	215	311	401

Upelio vanduo yra kietesnis už kitus mėginius.

Nr. 3 Elektrinis laidumas. Matavome demonstracinio prietaiso pagalba. Jeigu laidus, tai elektros lemputė šviotė:

Distiliuotas H <sub>2</sub> 0	Geriamas H <sub>2</sub> 0	Virintas H <sub>2</sub> 0	Upclio H <sub>2</sub> 0	
Nelaidus	Laidus	Laidus	Laidus	

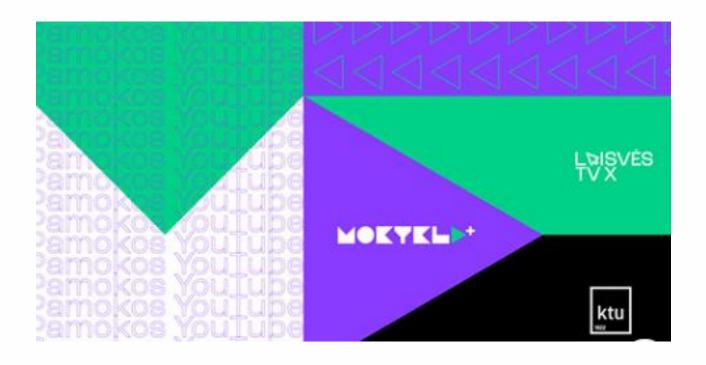
Upelio vanduo yra geras laidininkas. Elektros lemputė švietė stipriausiai.

Evada: Mitsy atlikti tyrimoi parodė, kad Girstučio vandenyje yra ištirpusių druskų.





#### **LESSONS ONLINE**



https://mokyklaplius.ktu.edu/?fbclid=IwAR0bGfNhhaC9GcDQTtL7fPYNgviJ\_7E0GZx1Oi-jq\_RC\_6Bgdx9oJUSPUCQ

