

STEM and STEAM teachers adopt the Norwegian experience through creative activities and programming



On January 11, 2023, an informative and educational workshop for STEM and STEAM teachers was held at the Daugavpils Innovation Centre.

The aim of the informative and educational workshop was to increase the capacity of STEM and STEAM teachers through educational activities and working in groups (hands-on work-shop method), as well as to take over the public involvement and teacher training methods of the Trondheim Science Centre (Norway), share the experience of the implementation of educational programs in science and innovation centres and their connection with the school's learning process and curriculum. The workshop focused on practical activities to gain new skills and knowledge in building and programming a simple traffic light controlled by the microcontroller micro:bit. The aim of the hands-on activity was to teach the participants the basic use of this microcontroller with the traffic light as an example of how to implement this in the classroom. The main thing was that a concrete example of how competences are used to solve problems in the STEM field was demonstrated. Building and programming a traffic light is a good example of how it could be used in an engineering or computer science class. Microsoft MakeCode is an open source platform which offers interesting computer science learning opportunities. Many participants experienced such programming experience for the first time working on this platform, which gave an insight into the real-time programming.

The seminar led by Trondheim Science Centre experts revealed new methods and promoted the transfer of good practices between Norwegian and Latvian STEM and STEAM specialists. Ideas were created on how to organize the learning process so that students have the opportunity to demonstrate the acquired knowledge and skills in challenging situations.

The workshop was a great opportunity to communicate with experienced colleagues from Norway, work in an international atmosphere, and network with teachers from Daugavpils and Latgale region.

After the workshop, the teachers admitted that it is always positive to broaden your horizons, and for many it aroused deeper interest in working and engaging their students.

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