

Kandava Regional Elementary School

Project description

The City Challenge

Buildings for the Future City

What is our question?

How can we improve the existing building where we spend a lot of time? In our school building, 40% of the classrooms are on the south side. As a result, in sunny weather, the rooms heat up very quickly and students want to go rest instead of solving problems during lessons.

What is the possible answer?

We want to find out how to cool our school.

Our solution

Together with geography teacher science team found out what factors influence the local air temperature. They learned that the received solar radiation and thermal radiation on Earth depends on the cloud cover. In addition, they searched for information about the reflectivity of different colors, studied construction practices in the south of Europe - colors and construction materials that prevent the premises from heating up. They discussed that the vegetation in the city structure also contributes to the fact that the air temperature does not rise so much. They also confirmed this in last year's city challenge, when the temperature in the park near the trees was lower than at the street intersection.

Our path

December 9th - 1st Open Virtual School Event with PULCHRA team Latvia and experts. Students got ideas on the sustainable water use, energy effectiveness, sustainable city planning as well as use of the wooden materials in the urban areas.

February 9th - the science team held the meeting with their classmates for a research challenge on school comfort zones. It was voted which classrooms most often lack comfort.

May 19th - the school held a mini ideas hackathon.

During the hackathon some ideas were developed on how to reduce the temperature in classrooms. They looked for inspiration both from our knowledge that we gained in lessons, from personal experience and from nature - asknature.org

May 31th - CC2 final event

The ideas from the hackathon were presented to the jury. The best idea was one which inspired from the forest – the foliage of the trees creates shade and cool air beneath. If you build small roofs over the windows, then the temperature in the classroom is less influenced by the sun.



June 8th , the science team project evaluation and motivation event was held in Riga. Young people visited the Latvian Nature Museum and the Latvian National Zoo. You could both demonstrate your knowledge and see animals, whose ability to protect themselves from drastic temperature changes was used in their school climate solutions.

Where you can find the main results?

April 2022 – Science reporters article about Earth day event

<https://www.kivs.lv/single-post/zemes-diena?fbclid=IwAR3vBpdvWTegD-tflkWkuBf4qzqFwzeuIXXF8mZl14Dx3LYICXzFkIYZAQ>