



“Smarter... Greener... Safer...” Project

LESSON PLAN

LESSON PLAN_ONLINE WORKSHOP... 6 CROATIA

Topic: A GREEN INITIATIVE

Brief description of the lesson:

- Students will design a public transportation model that will reduce pollution in big cities.
- Students will use robots as a models.
- Students will develop their coding and computational thinking skills.
- Students will design solar panels to charge the robot.

Objectives:

- making use of students’ scientific knowledge
- development of students’ creativity
- development of entrepreneurs and organisational skills
- deepening knowledge concerning the use of green energy

Methods and techniques:

- Problem Solving
- Scientific method
- Brain Storming
- Cooperative learning
- Role play
- Learning by doing

Materials and tools to create a recycled product:

computers, solar panel, robots

Preparation:

Prior to the lesson the students are presented with the idea of ‘smart cities’ and asked to do some research concerning the issue. They should think about renewable sources of energy, energy saving, ecological solutions in cities and different eco systems. They will use all this knowledge to design a simple public transport which can be described as eco- friendly.



Class duration: 4 lessons

Class activities:

1. The teacher asks the students about their idea of 'smart cities' and the outcomes of their research. Students work in groups of 4-6 and they brainstorm ideas for their Green Business – a public transport built with respect to natural environment. They make use of their knowledge concerning green energy, renewable energy sources, they search for examples of green architecture. It is important that the students work collaboratively, using their soft entrepreneurial skills.
2. Each group of students designs the building of their choice. They prepare the solar panels, robots and make a code, add descriptions and explanations of ecological solutions so that the design may serve as a source of inspiration and information for others to use. The outcomes of their work is presented to other groups. All the ideas are discussed and the feedback from other groups serves as evaluation of the presented solution.
3. Groups of students prepare short presentations or video of their designs and they invite students of other grades/schools to take part in short lectures on the use of green solutions in architecture.

Evaluation:

The feedback from other groups of students serves as part of the feedback on the whole activity. Additionally, after the series of dissemination lectures for other students the participants should be asked which elements of ecological knowledge and entrepreneurial skills they used most, in their opinion. How did they contribute to raising the ecological awareness of others? Which stages of their activity might be improved in the future?

Prepared by:

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