



Interactive Science Lesson

Title	Electricity
Aims of the lesson:	The aim of the lesson is to introduce the topic of electricity in interactive way. Through the work on SCRATCH programme students are engaged in the activities. To raise ecological awareness of students.
Learning Outcomes	Students learn the basic knowledge about the electricity. Students learn the ICT skills - students work with computer programme SCRATCH Raising students' awareness on energy consumption (sustainability)
Methodology	Lecture (introduction) Work in groups on experiment
Resources	ICT facilities SCRATCH programme
Content of the classes	The teacher provides lecture on electricity. Technical electrical installations in homes and schools are discussed. Lessons on the drawing are usually a problem for students and school doesn't have enough kits to make real circuitry. Another very important issue is energy saving, ie the use of energy saving lamps and appliances, turning off lights in empty rooms. We discuss whether students comply with these rules at home.
Practical exercise	Exercise: creating an interactive game in the Scratch program. Students divided into groups design games in which players pass routes and mazes, where they get points for putting out such light, the use of renewable energy sources, buying lamps. When choosing a standard bulb, or electricity produced from coal participants are losing points. Scratch is a simple to use, intuitive programming environment. It gives graphics capabilities.





543223-LLP-1-2013-1-LV-KA4- KA4MP

	<p>Programming is carried out in a visual way - the language elements have the shape of a puzzle by dragging can be stacked in a specific order. In this way, the code is associated with a particular object. Objects can react to external events.</p> <p>Appearance of the characters assigned to objects can be selected from the tray, created or imported from outside. Games related to electrical energy created as a result of the lesson can be used to organize a mini- tournament or even for checking knowledge.</p> <p>Scratch can also be used to create interactive wiring diagrams, where illuminate light bulbs, or rotating fans are replacing the traditional boxes with DIY kits.</p>
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This project has been funded with support from the European Union.
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