



Lesson Plan

Title	Symmetry
Aims of the lesson:	The aim of the lesson is to introduce the topic of symmetry. Teaching geometry always makes a huge problem, probably due to the fact that teachers themselves have problems with "geometric seeing ", and a good understanding of the subject requires many hours of work with students, for which teacher usually does not have time.
Learning Outcomes	Students learn the basic knowledge about the symmetry and geometry. The interest in and understanding of the concept of symmetry through so broadly conducted classes is greater as at regular classes. Students work in a computer lab, produce a piece of paper and mock-ups.
Methodology	Introductory presentation Groupwork on mock-up (model)
Resources	Computer lab Paper for mock-ups, puzzle 3D
Content of the classes	The lesson starts with introduction to the topic of symmetry. It starts with the question: "WHAT CAN YOU SEE?". It is one of the fundamental questions, to which answer is expected because this can determine what the student knows about the vocabulary and what particular geometric element is for him/her. Teaching symmetry is very strongly associated with reality and the usefulness of the concept.
	Starting the topic of symmetry the first classes s spent on "art fun" where children can play with paint, cut out of coloured paper "napkins" in the shape of rectangles and squares with different number of axes of symmetry. At this stage students are not sked to call it. The next hour of the course is devoted to watching the movie on mirror, rotational and shifting symmetry. The film is constructed in a way that it is very strong linked to reality. The notions that children already experienced during plastic playground symmetry play appear in natural way.
	After a series of classes devoted to marking the axis of symmetry and plays with a mirror we start the main task connected to the topic of symmetry, ie, developing the models showing the use of symmetry in neoclassical gardens. Students through the use of computer, books and the Internet acquire information and prepare a presentation on a particular neoclassical garden, using already acquired knowledge.



Lifelong Learning Programme

This project has been funded with support from the European Union. This material reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.





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

Practical exercise	The last step within the topic is to work on the mock-up.
	Depending on the group – you can use puzzle 3d buildings, which
	used symmetry and to create symmetrical structure having the
	function of the garden, depending on the imagination of children.



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