

Visual Mathematics in Practice



Name of the teacher:	Milena Ristić
Name and address of the school:	Škola za dizajn (School of design) Krupanjska 3 Belgrade
Theme of the lesson:	Theme of the lesson in a form of seven-days workshop is Representing mathematics in the arts (presented in the form of usage of: ornaments, Celtic knots and geometric forms)
Place in curriculum: (type of school, grade)	Secondary Art School 2nd and 3rd grade - Department of Textile design
Age of the students/pupils:	16 and 17 years old
Title of the lesson:	Art installation DECODING - connection between mathematics and the arts

Description of the lesson			
Time	Exercises, matters, parts of the lesson	Methods and forms of student activities	Developable competencies
<i>Please, write cc. the minutes you spent with each activities</i>	<p>Description of workshop:</p> <p>First day 30` Introductory lecture about the main topic of the workshop – and working on inspiration for making art installation DECODING (power point presentation). 10` Short break to divide students into small teams (three or four students in a group). 30` Practical exercises Mirror curves /Celtic knots (for each group) 30` practical exercises Simmetry (for each group) 2nd day – 5th day 15` preparing for daily activities, 180` (4x 45`) practical work on installation (with lunch and short breaks between) All teams getting assignments to create design for 3D art</p>	<p>- <i>presentation,</i> - <i>brainstorming and debate process,</i> - <i>designing,</i> - <i>setting up exhibition</i></p>	<p>- communication and working in team - learning through the process - awareness and inclusion of different approaches to theme - developing different types of interaction - recognition and understanding of the types of questions that art and mathematics can offer an answer - recognition of symmetry and visual balance in different forms - developing skills of imagination</p>

	<p>installation. Each team can choose the elements they want to use in design: ornament, Celtic knots or geometry forms. During the work on design, they will explore mathematical principles in composition.</p> <p>Also, students work implied incorporation of form of Zubun chemise (the ethnic dress in the Western and Eastern Balkan regions). Besides that, the specificity of that installation gave students possibilities to translate traditional technique of embroidery by using „keys” from an old computer keyboard. Design motifs are results of team work and their assignments research (the ornament, Celtic knots, geometric forms ...)</p> <p>6th - 7th day Preparing exhibition installation (with lunch and short breaks between) <i>Note: Art installation Decoding will be a part of exhibition Life Form on manifestation May Month of Mathematics 2014</i></p> <p><i>The lectures of Jablan Slavik and Liljana Radovic at the Summer School have inspired me for this workshop.</i></p>		<ul style="list-style-type: none"> - transform 2D into 3D objects - confidence in public - cross-sectorial learning experience
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Summary

Teaching through this kind of work is a great opportunity for all participants to improve their practical knowledge and skills and give them an impulse for their further individual research in a different field of art. Also, students get new perspective for using the abstract forms as well as using logical conclusion in creative process.

Supplements

Used materials:	papers, graphic pencils, rulers, scissors, paints, silicon glue, „keys” from an old computer keyboard
Photos:	