

Visual Mathematics in Practice



Name of the teacher:	Ivana Karajović
Name and address of the school:	Primary school „Stevan Dukić”, DantEOva 52, Belgrade
Theme of the lesson:	Adding fractions with like denominators
Place in curriculum: (type of school, grade)	Primary school, 4th grade
Age of the students/pupils:	10-11 years
Title of the lesson:	Make your own Pirot rug!

Description of the lesson

Time	Exercises, matters, parts of the lesson	Methods and forms of student activities	Developable competencies
10 min	<p>Repetition of earlier knowledge about fractions.</p> <p>Pupils watch PPT presentation about fractions (<i>Pirot Rug</i>).</p> <p>The teacher gives each group material for work and explains what is their assignment. Pupils work in pairs.</p>		<p>listening</p> <p>planning</p> <p>image creating skills</p>
25 min	<p>Pupils make their own Pirot rug from pieces of paper: halves are green, thirds red, quarters blue...</p> <p>They paste those pieces on white A4 paper, making unique pattern,</p>	work in pairs	<p>creativity,</p> <p>logical conclusion,</p> <p>flexibility of thinking,</p> <p>originality,</p>

	consider that pattern has to be symmetric.		attention keeping, whole – partial perception, looking for connections
10 min	Pupils calculate how many pieces of every color they used for rug. Here they have to add fractions with like denominators. After adding, they present their work to other pupils and discuss about class – did they like and enjoy it ...	work in pairs exhibition	calculating skills presentation communication skills
Note	Inspiration for this class came from: <ul style="list-style-type: none"> • Slavik Jablan: Modularity in Art • Kristóf Fenyvesi, The Experience Workshop MathArt Movement: Experience-centered Education of Mathematics through Arts, Sciences and Playful Activities 		

Summary

Pupils enjoyed this lesson. They were very interested in this theme, they worked diligently and made beautiful Pirot's rugs. Work in pairs has showed as very useful, because it develops friendship between pupils. They helped to each other and everybody successfully finished assignment.

I am very satisfied with this lesson, everything was just the way I planed, even better. Pupils said that it was one of the most interesting classes they have ever had. Also, children said that this was a completely new way of learning about fractions through arts and playful activities. Pupils viewed fractions from a totally different perspective they used to do and realized that fractions are all around us.

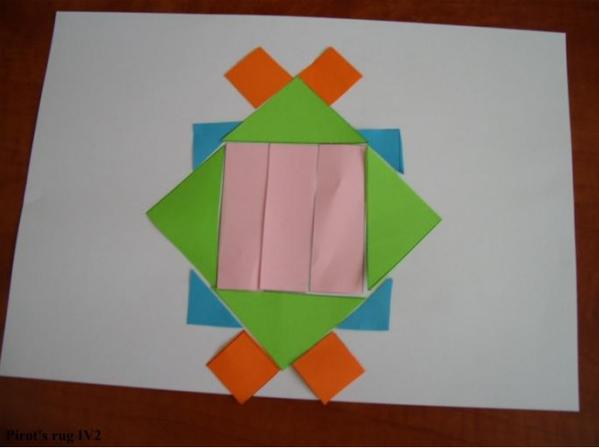
Supplements

Used materials:	Computer, projector, Microsoft PPT presentation <i>Pirot Rug</i> , scissors, glue, A4 paper in different colors with patterns – halves, thirds, quarters,...
Attachments:	<i>Pirot Rug.pptx</i> This is PPT presentation for pupils. <i>Patterns for Pirot Rug.doc</i> Print patterns, every page in different color, cut it with scissors and give to your pupils.

Photos:



Pirot's rug IV2



Pirot's rug IV2



Pirot's rug IV2



Pirot's rug IV2



Pirot's rug IV2



Pirot's rug IV2