

ACTIVITY DOSE PROJECT '22 –

School:
ETŠ“Nikola Tesla“
Belgrade
Serbia



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Title Activity	
Age	X 1st grade (6-8y)
Estimated duration	3 hours
learning objectives / competences	(The pupils can ...) - mixing colours yourself (using 2-colour circle) - using different materials to create your own rainbow on a canvas - photographing this rainbow so that every colour is on it
Short description of the activity (max. 4 sentences)	
All the colours of the rainbow How does it come we see colour? And a rainbow? Why is grass green? Mixing colours is not like mixing paint. If you light a red, blue and green bulb at the same time, what colour do they have together?	

CONTEXT	
Motivation	The pupils discover how colours are mixed by painting 2 colours on a circle and then rotating it quickly. Pupils are aware that everything has a colour. Pupils learn how the rainbow is created, by trying out for themselves how they can create the colors of the rainbow.

	<p>Pupils try out many different materials to find out which materials (prisms, CD, water, ...) make a rainbow appear. They can try to create a “magic box” in order to create all the colours.</p> <p>Pupils can photograph their result in such a way that all the colours are on it.</p> <p>Pupils learn about subtractive and additive colouring</p> <div style="text-align: center;"> <p>COLOR MIXING</p> <p>Y B R SUBTRACTIVE</p> <p>Y M C K</p> <p>R G B ADDITIVE</p> </div>
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Where is the STE(A)M integration?

<p>Where is the STE(A)M integration? (in a few words, small checklist for yourself)</p>	<p>S: light and colour</p> <p>T: Making your own colour circles (mixing), trying out and testing different materials to let rainbow colours through.</p> <p>E: Design and optimize of correct form in order to see the colors of the rainbow (prism, cd, magic box)</p> <p>A: the colour circles can be used to make artwork, photography</p> <p>M: measure distance, angle</p>
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Methodology and required materials

<p>Materials</p>	<p>Per class:</p> <ul style="list-style-type: none"> ● The sun or another light source ● Water <p>Per group:</p> <ul style="list-style-type: none"> ● Different types of shapes and materials to reflect rainbow ● camera ● White paper (circle) and markers ● Light bulbs (red, blue, green) ● cardboard
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	specific local requirements: activity can also be done outside.
Coaching & methodology (your 'lesson preparation') Are you paying attention to the research questions you are going to ask? Do you let your pupils investigate on their own?	
Timing work format and class organisation	<p>Preface: (introduction, start of lesson, context) 5 min - classroom Pictures of rainbows</p> <p>Part 1: (discovering and mixing colours) 20 min - classroom</p> <p>Why is the T-shirt of ... yellow? Why is your book blue? Why is the plate white? Why is your hair black? How can you see colours? How can you mix colours?</p> <p>We make a colour circle in pairs. Which colours are easy to mix? When we use the colour circle : How does it come we see a different colour now?</p> <p>Part 2: (rainbow with water) 10 min - classroom</p> <p>How is a rainbow created? We test it with the class. The sun shines through the water and therefore we see the reflection of all the colours (= the rainbow)</p> <p>Part 3: (testing materials) 30 min - group work</p> <p>The children can choose from many different materials. Find something that makes the colours of a rainbow. What works? What is not working? How did this happen? Example of a magic box: https://www.youtube.com/watch?v=dCAHeAaHwww</p> <p>Part 4: (Art = Photography) 10 min - group work</p> <p>Each group gets a chance to photograph their result. Target = all colours of the rainbow must be on it. How many colours does a rainbow have? Light source far or close? Several rainbows in one photo.</p> <p>Reflection (on both cooperation and the product): 10 min.</p>

	<p>Why does one material work and not the other to create a rainbow? Viewing children's photography + possible exhibition for the school</p>
<p>How do you evaluate the acquired competences of the pupils during this activity? (e.g. specific questions, extended instruction, differentiation,...) See questions in previous section</p> <p>Is there an evaluation after the activity to record the acquired knowledge/skills? Evaluation = looking at the photography when the goal is reached. Possibly have other classes explain the principle of "colour and light" at the exhibition</p>	
<p>Tips & tricks (which would you give to another teacher to make that lesson go more smoothly) If necessary, draw and make colouring circles beforehand. LIn then just colour in (saves time)</p>	
<p>Additional information / Links: https://www.youtube.com/watch?v=aOjOKKYKkb4 https://www.youtube.com/watch?v=GT-Z1AJIk https://www.youtube.com/watch?v=IXxZRZxafEQ https://www.youtube.com/watch?v=dCAHeAaHwww</p>	
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