

TEMPLATE for the TEACHERS

- ★ **Name of the project:**
Mondrian Art And Mathematics
- ★ **Subjects covered from STEAM areas:**
Mathematics, geometry, art, history of art
- ★ **Target group (age range and size of the group)**
15 years students, students with lower abilities in mathematics
- ★ **Duration of the activity:**
45 minutes, one lesson. Preparation for this lesson are 30 minutes
- ★ **Keywords:**
Geometry, mathematics, art, Mondrian, history of art.
- ★ **Key sentence describing context of the activity, followed by short description (200 words):**
Students explore Mondrian's art to learn more about geometrical shapes. The task's products should connect Mondrian's art with mathematical content such as area of square and rectangle. This workshop combines Mathematics and Art to help students with learning disabilities to learn geometry shapes. The art of famous Mondrian uses geometry and colors, and students can easily understand concepts of geometrical shapes. Also, the activities increased the motivation to learn Mathematics and Art.
- ★ **Description of the activity environment, including the list of materials and tools needed:**
Students get information about famous painter Mondrian and how he used geometrical shapes in his work. After that, students produce their own artwork, and calculating areas of squares and rectangles. They also observe mathematical features of those objects. Students need rulers and color pencils.
- ★ **Step by step, detailed description of the activity, including teaching and learning strategies.**
The first step is to introduce students with calculating the area of squares and rectangles. Then, students are introduced with the art of Mondrian. In this part, they learn about the famous painter and observe his work. The final step is to make an artwork inspired by Mondrian and calculate the area of the shapes in the artwork.
- ★ **Learning objectives/competencies:**
This workshop connects mathematics and art. Mathematical content is connected to the calculating the area of squares and rectangles. Students attain mathematical knowledge, but also, they research about the history of art. They learn about the famous painter

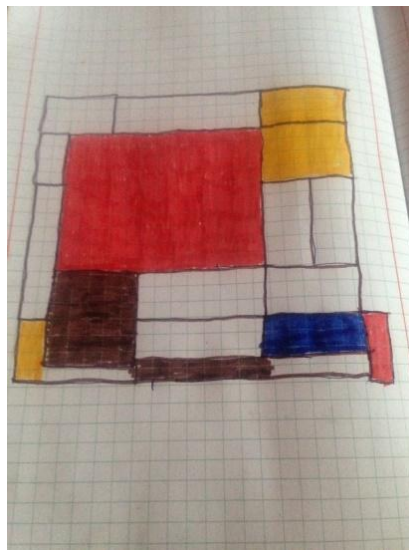
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Mondrian, and through this activity they learn about the connection between mathematics and art.

★ Evaluation/Assessment guidelines

The workshop was adjusted to the needs of students. For example, the task to measure line segments and to calculate the area of every color of the painting was very interesting for my students. One additional task was added. It was to draw their own interpretation of Mondrian's art and give measurements. For example, a student made her own artwork inspired by Mondrian, and calculated area of the squares and rectangular. The figure below shows the work of a student.



★ Lessons learned:

It is noticed that students are more motivated to learn geometry when the concepts are visually illustrated. Art is very useful in this process since many times, artists use geometry to express themselves or their art.

★ Additional information/Links:

https://sh.wikipedia.org/wiki/Piet_Mondrian

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