Math Art Corner – project 1

   1. Circles, circles, circles, …①①

Students' age: 10 years old student, first month in the new school , grade 5

Subject: It is an afternoon club, each week 70 min. ,
Club is called Math and Art – digital and with paper, ruler and compass

Project idea: Artwork on coured paper with circles that have different radii of
Fibonacci sequence

Start of the project: I would like to combine math (Fibonacci sequence, geometry with art).
Fibonacci sequence is well-known because we have this tower with the
numbers of the sequence on it in our town.

Students have got the worksheet (page 3), talked about it and answered
the questions. I explained them that the picture no. 6 has been created by
the famous artist Piet Mondrian. From lessons in elementary school they
know that the basic colours are red, yellow and blue that cannot be
generated by mixing up other colours. After that explanation the project
idea was obvious: cutting out circles of 1,2,3,5,8 cm radius in 3 different
colours and combining them on a white paper format Din A3.

The students will write in German about their ideas how to create their
piece of art, what they have found out about Piet Mondrian and the rule
how to continue the Fibonnaci sequence. As they have started only 3
weeks before with English, it will be up to me to translate their texts it in
English.

At the end of this project we will take pictures, exhibit the original work in
a corner of our school hall. Students will draft a powerpoint for the TS.

Monika Schwarze, Pestalozzi Gymnasium Unna (Germany), 2018

Projekt Nr. 1: Circles, Circles, Circles, …

In Unna, a town of Germany, there is tower of an old brewery. There are numbers on it, starting at the bottom with 1. Then the sequence continues with 1, 1, 2, 3, 5, 8, …. Do you see a pattern of this sequence ? How can you calculate the next numbers?

What does this famous sequence, called "Fibonacci sequence" have to do with pictures 2, 3, 4 and 5? What does picture 6 have to do with pictures 2, 3, 4 and 5? Do have now an idea of our first project?

Describe the project idea in your own words!

◯ **I would like to work with coloured paper.**

◯ **I would like to create the shapes by using GeoGebra , print it out and then colour with pencils.**

◯ **I like to create an artwork only using the colours of the famous painter Mondrian.**

Monika Schwarze, Pestalozzi Gymnasium Unna (Germany), 2018