



LESSON PLAN

Who is Afraid of Mathematics ?

Category: MATHS in ART & ARCHITECTURE

Title of the activity:

“ THE ROUNDABOUT in HALF-MOON STREET”

Year Group: Grade 5 (10 -11years old)

Teachers: Grazia GILARDI, Cristina GUGLIELMI, Giulia CIASTELLARDO

Learning Objectives:

- to develop good citizenship behaviours towards public areas and their safeguard
- to develop the ability of project planning with the use of creativity and to improve the aesthetic sense
- to improve the skill to cooperate in group-works in order to gain the same objective
- to develop the knowledge of the “circle” as geometrical shapes and its properties
- to improve the use of geometrical tools

Success Criteria:

- task-based approach
- project-based learning
- problem solving strategies
- application of geometrical concepts in real situations

Resources:

- Paper sheets, cardboards, pencils, crayons, scissors, rulers, protractors, pieces of rope, IWB, Municipality website

Differentiation:

- Give each child the opportunity to participate to the task with own ideas and initiatives

Lesson Description:

- Outdoor activity: the class group investigates the aspects of public green area around the school
- In classroom children discuss and collect opinions about which elements could be improved in their structure and aspects
- A small roundabout is chosen because it seems to be manageable by the children
- In the website of the Town Municipality pupils look for information and regulations about how the citizens can adopt and take care of public spaces
- Children investigate about the geometrical aspects of the roundabout shape and about the mathematical problems they need to solve in order to plan the project of a flowerbed
- Children search and decide what kind of plants are suitable for the flowerbed they would like to create
- The project is introduced to Municipality representatives in order to ask contributions and collaboration to realize it

Introduction:

Pupils explore the public areas around the school building by walking, observing and collecting data about how the conditions of green spaces are kept.

Main Lesson:

The activity starts with the pupils' decision to take care of a small round-flowerbed situated in the area in front of the school and which is not well - maintained.

In groups children read the municipality regulation that explains how people can take care of public green areas. Afterwards they share the ideas and teachers help them to understand the rules.

The following step is linked to the geometrical aspects of the project. Children improve the use of tools like protractor and goniometer to draw circles and circumscribed polygons. They develop the study of the properties of the circle (ray, diameter, circumference etc..)

In class pupils draw the pictures of how they would like to settle the flowerbed. They decide which project is the most convenient and suitable. They measure different parts of the flowerbed shape in order to realize a new look of it.

The project is displayed to the Municipality and during the following months it has been realized.

Plenary:

At the end of the project activities the class has participated to the inauguration of the finished flowerbed.

PHOTOS









