Mathematics Lesson Plan

Third form of secondary school

Topic of the lesson: **Geometry around us.**

Aims:

Student:

- is familiar with the concept of polyhedron;
- recognizes and names spatial solids;
- shows practical use of spatial geometry in everyday life;
- finds elements of geometry in different fields, e.g. in chemistry, architecture, nature;
- uses simple calculation to establish the volume area and surface area of geometric models.

Student during the lesson:

- expands mathematical vocabulary;
- develops spatial imagination;
- improves the ability of putting theory into practice;
- broadens knowledge about architecture, chemistry, nature;
- improves the ability to make simple calculations;
- masters the ability of logical thinking;

Form of work:

- group work;

Materials:

- polyhedron models;
- interactive board,
- presentation „Geometria around us”

Simplified lesson plan:

1. Indicating examples of elements of spatial geometry in the world around us. (students show examples from chemistry, nature, architecture).
2. Fluorite as an example of regular octahedron. Calculating the volume and surface area of the solid.
3. Rotunda in Cieszyn as an architectural model composed of cylinders and conics. Calculating the volume and surface area of the solid.
4. Willis Tower in Chicago. The analysis of the geometric structure of the tower. Calculating the area of the building.