

Szkoła Podstawowa Nr 2

Gliwice, Poland

Arts-based Learning Module

Subject:

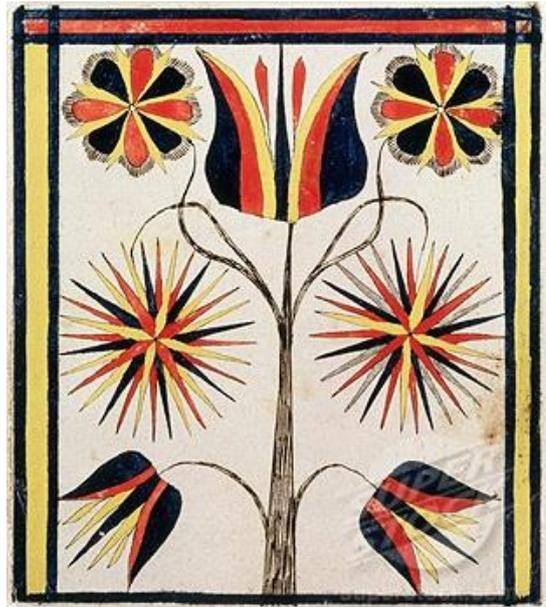
Mathematics and art

Topic:

Symmetry in art

Age of students:

13



Required prior knowledge:

The general notion of symmetry and the ability to mark points in a coordinate system.

General objective:

The increase of students' knowledge about symmetry and its use in art.

Specific objectives:

- Students know the examples of symmetry flips,
- Know the notion of an axis of symmetry,
- Can show examples of symmetry flips,
- Can point out if a given object (figure) has axes of symmetry,
- Are aware of the use of the discussed issues in different fields of art (painting, sculpture, architecture) and in everyday life.

Opportunities:

- Students can see the examples of symmetry in the surrounding world.

Arts involved:

Sculpture, painting, architecture, literature, music.

Resources:

1. PowerPoint presentation available on a website,
2. Interactive blackboard,
3. Paper sheets, pens,
4. The coordinate system.



Learning with the Arts

Erasmus+ School Cooperation Project 2017-2019

Time frame:

2 x 45 min

Methods of work:

project work (in groups)

Steps:

1. Brainstorm about the notion of symmetry and its use in everyday life and in art.
2. Presentation about symmetry in art and in our surroundings.
3. Discussion with students about an axis of symmetry in mathematics and in everyday life.
4. Creating cut-outs presenting the axes of symmetry to students.
5. Creating self-portraits showing the symmetry in our anatomy.
6. Showing symmetrical flips in the coordinate system on the OX axis, OY axis and the beginning of the coordinate system.
7. Students try themselves to create such flips of their own faces.

Carrying out the module in SP 2 in Gliwice:

- participants were students of Year 6 (22 students).
- Classes with Year 6: 12.06.2019 (mathematics and art lessons). The students participated eagerly in the brainstorm about symmetry and in creating the cut-outs. Presenting the symmetry in the structure of human face met particular interest. More examples of symmetrical flips, such as those in the mirror or created with paints could be added to the lesson. Students enthusiastically created their self-portraits.



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