

Drawings to remember passwords

1. Name of the project:

Drawings to remember passwords

2. Subjects covered from STEAM areas:

Arts,
Mathematics

3. Target group (age range and size of the group):

- Age group: 10-18 years
- 15-25 students

4. Duration of the activity:

6 lessons

5. Key words:

painting,
password

6. Key sentence describing context of the activity, followed by short description (200 words):

Students are to make a work of art. The artwork should help the students to remember their password better. The combination of different figures can be used to represent the password. For example, the intersections of the figures can represent the numbers within the password. Also, the shapes used can represent the letters. For example, a circle can represent the letter K. Furthermore, the students can use colors. The colors can stand for different letters or numbers.

7. Description of the activity environment, including the list of materials and tools needed:

- Materials: Colors, compasses, ruler, set square, paper, password
- Description of the activity environment: The students can decide for themselves what the respective figures, colors etc. stand for

Drawings to remember passwords

8. Step by step, detailed description of the activity, including teaching and learning strategies:

Step 1: Students are presented with a problem. The students have to remember a new password for Anton.

Step 2: Teacher presents a picture with geometric shapes. The teacher explains that there is a password hidden in this picture. The students are asked to work in and then in plenary think about how the password was represented. (What the figures, intersections, colors)

Step 3: The students are given an imaginary password which they have to represent artistically. At the beginning, the students should note down what the respective figures, colors, etc. stand for.

Step 4: The students are asked to depict the password artistically, taking into account their coding.

Step 5: The students' results are presented on the board. Together they think about which password has been depicted in the picture. The students have to explain which they have used.

Step 6: The children receive their Anton password, which they now have to represent artistically. which they should now depict artistically.

9. Learning objectives/competencies:

- Students learn to code their password.
- Students can create artistic reminders to remember passwords.

10. Evaluation/Assessment guidelines:

- Students receive a specific assigned password. The assigned password and code it. The students have to write down which figure, color, etc.

11. Lessons learned:

I have learned that not only the classic STEM exists, but also STEAM. Scientific topics can not only be viewed from a scientific perspective, but can also be linked to art, computer science, etc. STEAM enables cross-disciplinary learning.

12. Additional information/Links:

13. Contact person:

Prof. Dr. Claudia Tenberge