Lesson Plan

2023-1-SK01-KA220-SCH-00015112

Topic	Safety	
Block Title	How to keep secrets?	
Age category 8-15	**Duration(min)** 135 min	**Number of teaching hours** 3

Student-oriented educational goals (content and performance standards)

ICT:

- Content: creating a quality password, security mechanism, hacker activity, information society - security and risks, algorithmic problem solving using variables
- Performance: the student can evaluate which information must be protected trom abuse and can apply rules to ensure access to email, the community, to the PC and against unauthorized use, can create a simple program using variables

Math:

- Content: combinations with and without repetition
- Perfarmance: the student can create combinations of elements of the set according to the established rules

Art and Design:

- Content: material, semi-finished product, gift and utility item, idea, design, sketch, dimensions, tools and instruments, work process
- Performance: the student can create a sketch of a product, select technical materials and tools far making a product, propose a work procedure far making a product, make a designed product, present the results of his work

21st century skills:

- Critical thinking and problem solving
- Communication and cooperation
- Digital literacy
- Creativity and innovativeness
- Adaptability and flexibility
- Leadership and social responsibility

Didactic aids and didactic technology:

- PC with internet access,
- micro:bit with accessories
- for a sketch (pencil, paper),
- material for creating a diary

References / Resources (videos, methodology):

- https://www.passwordmonster.com/, https://nea1.fun/password-game*l*
- https://www.youtube.com/watch?v=V ysrD r-6E

Motivational phase:

Duration (min): 20min

Objective (student-oriented): To activate the interna! motivation of the student with the help of his own concrete experience

Introductory activity - motivation:

- Launching an introductory video far creating passwords
- Discussion with students about creating a strong password
- Forming pupils into groups of 3

- Each group comes up with its own password, the strength of which is verified on the website

Introduction to the issue (key words): password, power, secret lnteractive questions and answers (teacher, student):

- What a strong password must contain (answer: at least 8 characters, upper and lower case letters, special characters)
- What must it not contain? (space, accent)
- What it should not be (name of family member, infarmation close to the user, 1234...)

Source view: https://www.passwordmonster.com/

Explanation of the purpose of the activity: : increasing internal motivation.

Setting expectations: the student wants to voluntarily participate in the educational process

<u>Exposure Phase (Exploration):</u>

Duration (min): 90-100 min

Objective: : to arise interest in programming.

Science integration (main subject): Activities: find out UV radiation values (safe, dangerous)

Computer Science integration (use of micro:bit): Activities: to program a Microbit that detects UV radiation and warns about the use of protection ata certain value

Group discussion:

- what they liked the most,
- how they worked / programmed (demanding, easy),
- whether they were motivated by winning (beach equipment)

<u>Review and evaluation of the exposure phase {according to the student):</u>

- what they liked the most,
- how they worked / programmed (demanding, easy),
- whether they were motivated by winning (beach equipment)

<u>Fixation phase (fixing and deepening):</u> **Duration (min):** 10 **Objective:** to check the knowledge acquired during block classes **Activities for using the micro:bit** in a practical area of life: a short quiz
Pupil assessment: evaluation form - self-evaluation ASSESSMENT SUGGESTION: verbal assessment
Attachments: https://www.youtube.com/watch?v=xcOKOII