

Lesson plan

2023-1-SK01-KA220-SCH-00015112



Topic	Lifestyle	
Block name	How to keep secrets?	
Age category 8-15	Age category 135 minutes	Number of teaching hours 3

Student-centered educational goals (content and performance standards)

Veda:

- Acquiring systematic and objective knowledge (mathematics, technology, art).

Mathematics:

- The student knows the properties of geometric shapes.
- He adheres to the principles of economy and knows how to handle money.
- He controls numbers related to trade and the circulation of money.

Technika / INF:

- The student can design a product in Tinkercad, which he can then print on a 3D printer.
- He/She controls work activities aimed at making the designed products.
- The student can create a video in Canva.

Art, design:

- The student can navigate the world of art and connect it with everyday life.
- He works with a wide range of visual art stimuli.

21st century skills:

- The student can skillfully analyze information and create creative solutions to complex problems.
- Able to effectively communicate ideas and collaborate with others in a team environment.

Teaching aids and teaching techniques:

- 3D printer,
- computer,
- memory card,
- Canva program,
- Tinkercad program.

Resources (videos, methodology):

- Minedu.sk – Isced 2,
- <https://www.mcae.sk/pripadove-studie/jako-ziaci-zakladni-skoly-pracuju-s-3d-tiskarnou-makerbot-sketch/>
- <https://abbrobotika.sk/roboticka-3d-tlac/>
- https://www.vut.cz/www_base/zav_prace_soubor_verejne.php?file_id=127729

Motivational phase:

Development of students' creativity and imagination, development of students' activity.
Introductory story - familiarizing students with the fact that the jewelry they make will be used for charitable purposes.

Duration (min): 15 minutes

Objectives (regarding the student):

- development of empathy and belonging,

Introductory activity – motivation: Guess what you hear.

- Samples of finished jewelry.

Introduction to the issue (keywords): jewelry, style, help

Interactive questions and answers (teacher, student):

- Have you ever made jewelry? When I was a child, I used to make jewelry out of beads.
- Do you think it's possible to make jewelry using a 3D printer? I don't know. Maybe. I've never tried it.
- Do you know anyone with a similar fate? Yes – specifically telling a story. No.

Resources:

- Explaining the purpose of the activity: to encourage students
- Setting expectations: we expect children to be motivated by the story and want to get involved in jewelry making

Exposure phase (discovery):

Duration (min): 100 minutes

Objectives: production of a jewelry model in a 3D printer and subsequent production of the final product.

Science (major subject) integration:

Activities:

- creation of an artistic design,
- programming and printing of 3D jewelry design,
- making the final product.

Informatics integration (micro:bit integration)

Activities:

- creating a video in Canva,
- jewelry design in Tinkercad

Group discussion:

- jewelry price quote setting - rings and earrings - 2 euros, bracelets and brooches - 3 euros, necklaces - 5 euros
- The students will reach an agreement through voting.

Review and evaluation of the exposure phase (from the student's perspective):

- the student would evaluate the activities through the created cards (red - did not like, green - liked, yellow - cannot express himself)

Fixation phase (fixing and deepening):

Duration (min): 20 minutes

Activities:

- observing children,
- encourage and praise children during the activity
- Revisiting the jewelry production process from design to final result
- creating a quiz in Kahoot.

Student evaluation:

- Student assessment based on previous Kahoot activity.

Attachments:

- Kahoot quiz.