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| Activity plan | | | | |
| ACTIVITY PLAN | | | | |
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| **Theme** | **Subtopic** | **Activity Title** |
| 1. Environmental Awareness and Conservation | 1.4. Sustainable living and technologies | Eco smell car fresheners |

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| Introduction part (or activity overview) |
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| **Introduction part (or activity overview)** | Implementing this activity helps to reduce the environmental footprint of paper and move towards a more sustainable future. The tasks are supposed to promote high ecological values with combination of scientific knowledge and practical skills; students engage in making innovative models for daily life, fostering creativity among the students with green technologies. |
| **SETTING** | Classroom equipped with digital equipment (computers, laptops, tablets or smart phones) and working classroom. |

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| Materials Needed |
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| **Materials Needed** | Various natural materials (e.g. peels from banana, orange, pomegranate, tangerine, lemon etc. or flower leaves from roses, lavender, chamomile, mint etc.)  - Unflavoured gelatin powder (Alternatives: Arow root powder or Carbopol), fragrance, table salt, food colors, boiled distilled water, silicon molds, moulding white powder, spoons, bowls, acrylic paint, brushes, jars, wax, plaster, glue, magnets, essential oils, wool or old clothes, baking soda, seeds from plants and a lot of paper.  **-** Students could try different materials if they make the research previously with authorization of the teacher. |

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| **Learning Outcomes** | * Understanding the concept of using old home materials and making the best use of them. * Replacing the plastic accessories in the car that cause harm to the environment after their initial use and creation of green technologies. * Enhancing skills in digital research and data analysis. * Improving ability to critically analyze and discuss the importance of using natural seeds and scents to preserve the environment. |
| **Activity Contents** | **Activity: Eco smell car fresheners**  **Activity Steps – (**Duration: 1-2 hours for production of the fresheners and cleanup)  **Theoretical part:** (Duration: 10 minutes) – Students explore the usage of printed paper across various sectors (education, business, government), emphasize the essence of paper as a tool for communication and documentation, and how its extensive use poses significant environmental challenges. This theoretical analysis explores the environmental impact of high paper usage and suggests measures to mitigate these effects. Students discuss about different ideas for reusing the paper for eco purpose.  **Task 1. Making car air fresheners by blending old and unusable paper (30 minutes):**  - Students blend old paper with a little water, gelatin and drops from essential oils or dried peels from fruits and flower leaves. When a thick and homogenous mixture is obtained, fruit seeds are placed in it. In the meantime, molds for the mixture are being prepared which can be made from thicker cardboard, plastic or straws. They can choose different math shapes to experiment with.  - Students choose the flowers and fruits they are most interested in from the section Materials Needed.  - Students pour the mixture into the mold and let it harden. Then, they can begin the process of decorating and art approach for the fresheners. They can produce creative designs that will be attractive for buying this kind of crafts. As a string for these decorations natural wool ropes or thread can be used. After the odor from the air fresheners has subsided and disappeared the same fresheners can be placed in the ground to possibly sprout a new plant.      **Task 2. Constructing and fashioning process (60 minutes):**  - Students make research on the Internet and come up with ideas for creating a new car freshener different than the one in Task 1. The teacher gives interesting videos suggestions to the students but they have the free will to search for different ideas than the ones the teacher suggested.  Videos for creating different car (air) fresheners:  <https://www.youtube.com/watch?v=IIWy81ixSh4> (Duration: 5:40)  <https://www.youtube.com/watch?v=q0IysQXiF-E> (Duration: 0:29)  <https://www.youtube.com/watch?v=r_JoHE3NpU8> (Duration: 16:44)  <https://www.youtube.com/watch?v=4B4OjLebkRc> (Duration: 9:12)  <https://www.youtube.com/watch?v=D-d_30MhkOY> (Duration: 2:36)  <https://www.youtube.com/watch?v=IwHjqpgwJ8Q> (Duration: 0:47)  - Students previously are informed to bring the materials for this lesson.  **Task 3. Evaluation and reflection, cleanup (20 minutes):**  - Once the fresheners are created, students evaluate their results and reflect on the designing action, the effectiveness of the activity, and any challenges experienced during the task.  - Students clean up their workspaces.  **Additional Tips:**  - Students research chemistry and biological properties of some plants to create pleasant car air freshener.  - Use the air fresheners, as hand-made products by the students, in the school’s toilets  - Making air fresheners with the logo of the school.  - Testing the life of air fresheners. |
| **Assessments** | * Assessment of Web Quest reports for depth of research and understanding. * Evaluation of the thoroughness and accuracy of practical observation records. * Group presentations synthesizing practical inventions, with a focus on which method is the most sustainable, which design is the most creative and efficient, etc. |
| **Key Competences** | * Cognitive competence * Cultural competence * Creativity competence |
| **Connections with Eco STEAM** | **Eco** – Reducing printed waste paper, using natural seeds, fragrances and essential oils, planting new plants and spreading environmental awareness.  **S**cience – interdisciplinary knowledge from chemistry and biology (producing smell of natural scents and selection seeds from biology lessons).  **T**echnology – use of digital equipment for research, use of software for providing a financial plan (MS Excel).  **E**ngineering – the unique process of designing the car fresheners improves students creativity.  **A**rts - developing creativity through the use of natural materials, scents, seeds and colours for these car crafts.  **M**ath – measurments about the process of forming the car fresheners, preparation of a financial plan for a possible business company with the specified activity, picking option for mathematical shapes, and generating molds and hollow containers used to give shape to molten liquid materials when it hardens. |
| **References** | • Academic and scientific literature on about essential oils, how plants are to extract the fragrance and the seedsfrom them.  • Online databases and resources for inventing DIY car air fresheners. |
| **Notes** | • The workshop is applicable in every school organization.  • Focus attention on safety during the modeling.  • Motivate students to develop their own green business sustainable idea. |

**Assessment Table for Web Quest Reports:**

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| Assessment Criteria | Points | Comments |
| Depth of Research | \_\_/5 |  |
| Understanding of natural seeds and smells | \_\_/5 |  |
| Accuracy of Information | \_\_/5 |  |
| Quality of Presentation | \_\_/5 |  |
| Use of Visuals | \_\_/5 |  |

**Assessment Table for Group Presentations:**

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| Assessment Criteria | Points | Comments |
| Comprehensiveness of Findings | \_\_/5 |  |
| Clarity in Presentation of Data | \_\_/5 |  |
| Understanding the methods of making the car freshener | \_\_/5 |  |
| Ecological Interpretations and Insights | \_\_/5 |  |
| Teamwork and Collaboration | \_\_/5 |  |
| Use of Visual Aids in Presentation | \_\_/5 |  |