|  |  |  |  |
| --- | --- | --- | --- |
| ACTIVITY PLAN | | | | |
| ACTIVITY PLAN | | | | |
|  | | | | |

| **Theme** | **Subtopic** | **Activity Title** |
| --- | --- | --- |
| Creative and Critical Thinking in EcoSTEAM Education | Problem-solving in Environmental Contexts | * Ecology in economic systems. * Trade in organic farming. |

| Introduction part (or activity overview) |
| --- |
|  |

|  | |
| --- | --- |
| **Introduction part (or activity overview)** | The goal of the activity is to create an organic farm according to a chosen specialization direction, which would be fully self-sufficient and explain in which economic system the farm would operate.  Students are divided into groups of 4-5, walking by the sea (in the forest, park, or another natural space), collecting various materials found in nature to create an organic farm and present in which economic system (traditional, command, or market) it will operate, explaining why.  Students will delve into the structures and operating principles of different economic systems, such as market, command (planned), or traditional. This will help understand how an organic farm can be integrated with each of them.  After creating an organic farm that aims to be completely self-sufficient, it's important to consider how this farm could operate in different economic systems. Each economic system has its advantages and challenges, which could affect such a farm. Students need to consider how this organic farm could operate in market, traditional, and command (planned) economic systems.  Each of these economic systems has its peculiarities and can offer different opportunities. The market economy can ensure freedom of choice and profitability, the traditional economy - community support, and the planned economy - government backing and regulation. It's important to properly adapt the organic farm to the chosen economic system and the needs of the local community. |
| **SETTING** | The activity takes place by the sea, in a park, in a forest, or in another natural space. The educational context - group work. |

| Materials Needed |
| --- |
|  |

|  | |
| --- | --- |
| **Materials Needed** | Textbook and/or computer and internet (for finding information about economic systems).  Materials found in nature. |

|  |
| --- |
|  |

|  |  |  |
| --- | --- | --- |
| **Learning Outcomes** | * Create a model of organic farming that takes into account aspects of economic efficiency and environmental protection. This will allow students to gain practical skills in planning and developing an organic farm. * Examine and evaluate the impact of organic farming on economic systems and the environment. This will enable students to critically assess the advantages and challenges of organic farming. * Analyze the possibilities of applying the created organic farm model in different economic systems and identify potential obstacles or challenges associated with such application. * Present their created models of organic farming and introduce them. This will help students express thoughts and propose interesting solutions. * Encourage students not only to create an organic farm but also to look for ways to successfully integrate it into existing economic systems, aiming for sustainability and long-term efficiency. |  |
| **Activity Contents** | **Activity 1: Ecology in Economic Systems**  **Theoretical Part (Duration: 45 minutes):**  Students are introduced to economic systems. The teacher explains, and then students either read about it in economics textbooks, watch videos, or read articles online.  **Videos:**  **"What is an Economic System?"** <https://www.youtube.com/watch?v=AHJSSr_wrJY>  Overview: An educational video about what an economic system is, how they are classified, and what kinds of economic systems exist.  Duration: Approximately 3 minutes.  **"The Purpose of Mixed Economies"** <https://www.youtube.com/watch?v=9S85CypctJI>  Overview: An educational video explaining that almost all countries on Earth use a mixed economy, which merges aspects of various economic types. It discusses why a mix of free market aspects and some government control is used, the purpose of this approach, why the government should intervene in the economy, and why this model is successful.  Duration: Approximately 6 minutes.  **About Traditional Economic System:**  In a traditional economic system, agriculture and manual labor are common. Creative thinking might be valued as a way to improve traditional technologies and farming methods, aiming for efficiency and productivity increases. Critical thinking could be directed towards understanding how the traditional economy affects the environment and how new ideas can contribute to the development of a sustainable farm model.  Texts: What is a Traditional Economy? Countries, Characteristics and Example https://www.geeksforgeeks.org/traditional-economy-definition-examples-pros-cons/  What Is a Traditional Economy? https://www.thebalancemoney.com/traditional-economy-definition-examples-pros-cons-3305587  **Videos:**  **What is a Traditional Economy?** https://www.youtube.com/watch?v=IQwU7NKf02g  Overview: This video looks at a traditional economy. It analyzes the different advantages and disadvantages of the economy and explains how life is in this economy.  Duration: Approx. 4 minutes  **About Market Economic System:**  In a market economy, individual initiative and competition are crucial. Creative thinking can be used for creating new products and services aimed at meeting environmental and technological standards. Critical thinking could be aimed at evaluating the consequences of the market economy system on the environment, identifying social inequalities, and seeking ways to make the economy more sustainable.  Text: What Is a Market Economy? <https://www.thebalancemoney.com/market-economy-characteristics-examples-pros-cons-3305586>  **Videos:**  **What is a Market Economy?** https://www.youtube.com/watch?v=DKVEOefidjQ  Overview: This video looks at a market economy. It analyzes the different advantages and disadvantages of the economy and explains how life is in this economy.  Duration: Approx. 6 minutes  **What is Capitalism? Capitalism Explained | Pros and Cons of Capitalism? Who is Adam Smith?** https://www.youtube.com/watch?v=uLsAhwJzQoI  Overview: In this video, we’re going to look at a simple explanation of Capitalism as well as the pros and cons.  Duration: Approx. 4 minutes  **About Command (Planned) Economic System:**  In a command (planned) economy, collective work and resource distribution are typical. Creative thinking in this system could be used for creating an organic farm that integrates environmental protection and science disciplines. Critical thinking could be directed towards analyzing how the command economy affects nature and how various solutions can have social and ecological consequences.  Text: What Is a Command Economy? https://www.thebalancemoney.com/command-economy-characteristics-pros-cons-and-examples-3305585  **Videos:**  **What is a Command Economy?** https://www.youtube.com/watch?v=lIHfNDNRQKs  Overview:This video looks at a command economy. It analyzes the different advantages and disadvantages of the economy and explains how life is in this economy.  Duration: Approx. 4 minutes  **Task (Duration: 20 minutes):** Students are divided into groups of 4-5 and choose in which economic system their farm will operate, prepare a short presentation (oral) on what ecological aspects will be reflected in the chosen economic system.  **Activity 2: Trade in Organic Farming**  Students will have to create an organic farm that reflects the chosen economic system and creates an item for sale from materials collected in nature.  **Theoretical Part (Duration: 15 minutes):**  Students are introduced to the concept of organic farming, its benefits. Organic farming is not just a place where organic food products are grown. It's a living system where nature's balance is respected, biological diversity is nurtured, and sustainable use of resources is encouraged. The essence of organic farming is to avoid using synthetic fertilizers, pesticides, genetically modified organisms (GMOs), and certain veterinary medicines. Instead, it relies on ecologically balanced agricultural principles, such as crop rotation, green manure, compost, and biological pest control.  Benefits of Organic Farms:  Environmental Sustainability. Organic farms contribute to environmental sustainability because they reduce pollution from synthetic chemicals, decrease soil erosion, promote biological diversity, and use less energy.  Health Benefits. Organic products, which do not contain harmful synthetic chemical substances, are often healthier. Some studies suggest that organic food products might be more nutritious than those grown using conventional methods.  Animal Welfare. Organic farming also demands high standards of animal welfare, providing animals with organic feed and keeping them in conditions that match their natural behavior.  Soil Health. Practices in organic farming improve soil health by enhancing soil structure, conserving water, and fostering beneficial soil organisms.  Resilience. Organic farms are often more resilient to environmental factors such as climate change due to their greater biological diversity and healthier, more robust soil.  https://www.vilkijoszum.lt/kas-yra-ekologinis-ukis-sveikesniu-ekosistemu-ir-bendruomeniu-puoselejimas/  **Task 1 (Duration: 2 hours): Create an Organic Farm.**  Step 1: Students walk in natural spaces and collect various materials, e.g., branches, leaves, pebbles, which they will use to create an organic farm. (1 hour)  Step 2: Group members use the collected materials to create an organic farm that has all the necessary elements for self-sufficient living. (30 minutes)  Step 3: Each group creates and presents their organic farm and explains in which economic system it will operate (traditional, command, or market). Students justify their decisions. (30 minutes)  **Task 2 (Duration: 45 minutes):** Produce one item within the selected economic system and sell it. The item must serve a purpose. The goal is to generate as much revenue as possible. Resources for manufacturing the item are gathered from nature, so only labor costs are incurred. Each team can set the price for their product themselves.  Step 1: Make an item from the collected resources. Think of a name for the product and prepare a presentation/advertisement lasting up to 30 seconds.  Step 2: Present/advertise the created product. Team members show the item to all participants, share its name, and explain its purpose and how to use it. The goal is to convince other team members to choose your item.  Step 3: Each student "buys" an item from another team. You can't buy your product. Each student writes down which item they are buying (Appendix 1).  Step 3: The teacher records the product name, purchases, and everything else in a table (Appendix 2) and announces which team earned the most revenue. |  |
| **Assessments** | The final result is assessed with a grade. (Appendix 3. Assessment Table)  The assessment is based on several criteria: originality and creativity in creating the organic farm, application of knowledge in the STEAM area, accuracy of information - the ability to explain in which economic system the farm will operate, teamwork and collaboration, use of visual aids in the presentation, quality of the presentation, and revenue earned.  After the presentations, students perform an oral reflection. |  |
| **Key Competences** | * Creativity competence * Cognitive competence * Communication competence * Social, emotional and healthy living competences * Digital competence * Cultural competence |  |
| **Connections with Eco STEAM** | Eco - understanding the connections between organic farming and economic systems.  Science - knowledge in economics, biology, chemistry, physics, and the arts.  Technology- understanding how to improve technologies in different economic systems.  Engineering – engineering solutions for farms that produce everything themselves.  Art - creating visually appealing models of organic farms.  Math- optimizing the operation of economic systems, calculating revenue. This could involve optimizing production efficiency, resource distribution, or profitability. |  |
| **References** | https://www.youtube.com/watch?v=AHJSSr\_wrJY  https://www.youtube.com/watch?v=9S85CypctJI  https://www.geeksforgeeks.org/traditional-economy-definition-examples-pros-cons/  https://www.thebalancemoney.com/traditional-economy-definition-examples-pros-cons-3305587  https://www.youtube.com/watch?v=IQwU7NKf02g  https://www.thebalancemoney.com/market-economy-characteristics-examples-pros-cons-3305586  https://www.youtube.com/watch?v=DKVEOefidjQ  https://www.youtube.com/watch?v=uLsAhwJzQoI  https://www.thebalancemoney.com/command-economy-characteristics-pros-cons-and-examples-3305585  https://www.youtube.com/watch?v=lIHfNDNRQKs  https://agriculture.ec.europa.eu/farming/organic-farming/organics-glance\_lt  https://www.vilkijoszum.lt/kas-yra-ekologinis-ukis-sveikesniu-ekosistemu-ir-bendruomeniu-puoselejimas/ |  |
| **Notes** |  |  |
|  |  |  |

| Appendix 1 "Purchasing" card. |
| --- |
|  |
| | "Purchasing" card | | --- | | I, .................................................................., ,,purchase“ ...........................................................................................  (product name) |  APPENDIX 2 Products table.  | **Products table** | | | | | --- | --- | --- | --- | | **Product name**  **(1)** | **Product price**  **(2)** | **Quantity purchased**  **(3)** | **Revenue earned**  **(2) × (3)** | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |

# Appendix 3. Evaluation Table for Activity 2.

| Evaluation criteria | Points | Comments |
| --- | --- | --- |
| Originality and creativity in creating the organic farm | \_\_/5 |  |
| Application of knowledge in the STEAM area | \_\_/5 |  |
| Accuracy of information - the ability to explain in which economic system the farm will operate | \_\_/5 |  |
| Quality of Presentation | \_\_/5 |  |
| Teamwork and Collaboration | \_\_/5 |  |
| Use of Visual Aids in Presentation | \_\_/5 |  |
| Quality of Presentation | \_\_/5 |  |
| Earned revenue | \_\_/5 |  |