# HANDBOOK

# O.P.E.N. -Outdoor education to fully understand sPort and thE eNvironment

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*Note: All the photo illustrations in this handbook were taken during the experimental international class held in Brussels, featuring students from all partner countries involved in the O.P.E.N. project and during the school activities in the partner countries: Italy, Poland, Turkey and Lithuania.*

# Contents

## Introduction to the O.P.E.N. handbook

The O.P.E.N. project was conceived as a response to the increasing need for a comprehensive and interdisciplinary approach to education, specifically in the areas of environmental sustainability and physical well-being. The project's primary objective was to bridge the gap between these two crucial aspects of modern education through the innovative pedagogical framework of "outdoor education." Outdoor education, in this context, is not merely about conducting activities in nature, but rather about employing a rigorously structured and thoughtfully planned curriculum that integrates various disciplines in a cohesive and practical way.

The rationale behind O.P.E.N. stemmed from the recognition that both environmental education and physical education have traditionally been treated as separate entities within school curricula. However, the growing body of research underscores the interconnectedness of environmental sustainability and physical well-being. Studies indicate that exposure to outdoor environments fosters healthier physical and cognitive development, enhances emotional well-being, and cultivates greater ecological awareness and responsibility among learners. Furthermore, incorporating outdoor education as a core element in interdisciplinary teaching facilitates a deeper and more holistic understanding of environmental and physical education.

O.P.E.N. aimed to address this by creating an interdisciplinary educational plan that was designed to be integrated into all facets of school life, while also being accessible to other educational and cultural stakeholders in the broader community. The ultimate goal was to enable students to become proactive agents of change, addressing critical issues related to environmental sustainability and public health. This focus on student-centered learning and empowerment is consistent with the latest trends in pedagogical theory, which emphasize the importance of experiential learning and active citizenship as key components of a 21st-century education.

## Project Objectives and Pedagogical Focus

The O.P.E.N. project sought to achieve several specific pedagogical objectives:

1. Reflection and Professional Development for Teachers: A key aspect of O.P.E.N. was to stimulate critical reflection among educators regarding their relationship with the environment and their pedagogical approaches to it. Teachers were encouraged to rethink how they design their lessons, integrating environmental and physical education in a more interdisciplinary manner. The project provided them with the tools and frameworks necessary to develop interdisciplinary didactic units (UDs) that align with contemporary educational needs and foster comprehensive learning outcomes.
2. Institutional Integration and Sustainability: Another primary goal of O.P.E.N. was to promote a collective commitment among partner schools to integrate environmental and physical education into their long-term strategic plans, such as the PTOF (Piano Triennale dell'Offerta Formativa) in Italy and equivalent planning documents in other countries. By embedding these interdisciplinary approaches within institutional frameworks, the project aimed to ensure that the outcomes would be sustained and that the methodologies developed would have a lasting impact on the educational landscape.
3. Optimization of Physical Education: O.P.E.N. also addressed a common issue in schools: the undervaluation and underutilization of physical education (PE). Too often, PE is reduced to simple physical exercises or the rote learning of rules for specific sports. The project aimed to

optimize PE by incorporating it into a broader framework of physical and environmental well-being, thereby giving it greater educational relevance and significance. The interdisciplinary approach allowed physical education to be seen not just as a form of physical activity, but as an opportunity to develop skills in teamwork, problem-solving, and responsible citizenship.

4. Empowering Students as Agents of Change: Central to the O.P.E.N. project was the aim of fostering active citizenship among students. The curriculum encouraged students to engage critically with environmental and social issues, equipping them with the knowledge and skills needed to become informed, responsible citizens. By focusing on problem-solving related to local environmental and public health challenges, the project helped students connect theoretical knowledge with practical, real-world applications, thereby fostering a sense of ownership and responsibility for their communities and the environment.
5. Development of Assessment Criteria: An important aspect of the project was the creation of clear and actionable assessment criteria for teachers to evaluate the competencies developed by students. These competencies included not only environmental and physical skills but also broader abilities related to citizenship and social responsibility. This assessment framework ensured that the outcomes of the UDs were measurable and aligned with the overarching goals of the project.

Project Deliverables and Long-Term Impact

The most tangible output of the O.P.E.N. project was the development of four detailed working papers, which were compiled into the O.P.E.N. Handbook for Educators. This handbook serves as a comprehensive resource for teachers, providing them with a set of practical actions, theoretical reflections, and advanced pedagogical strategies designed to transform how environmental and physical education are taught in schools.

Each of the four working papers was focused on one of the core thematic areas of the project:

1. Practical Actions for Environmental Protection (developed by the partner in Turkey)
2. New Frontiers in Physical Education (developed by the partner in Lithuania)
3. Responsible Citizenship in Environmental Care (developed by the partner in Poland)
4. Outdoor Education: Structures and Methodologies (developed by the partner in Italy)

Each working paper included three didactic units (UDs), each of which was equipped with assessment tools to evaluate students' learning outcomes. The thematic focus of these UDs was deeply informed by the local contexts and specific challenges faced by each partner country, ensuring that the solutions and approaches were both relevant and scalable.

The O.P.E.N. Handbook, along with its accompanying didactic units, was designed as an open educational resource enabling educators not only within the partner institutions but across Europe to adopt, adapt, and implement these interdisciplinary teaching strategies.

## Conclusion

The O.P.E.N. project represents a significant step forward in the evolution of interdisciplinary teaching, particularly in the fields of environmental sustainability and physical education. The long-term benefits of this approach are expected to be substantial, as it not only improves the quality of teaching but also empowers students to take an active role in addressing some of the most pressing issues of our time—environmental protection and public health. Through its focus on experiential learning, active citizenship, and interdisciplinary collaboration, the O.P.E.N. project has the potential to reshape the way education is delivered and experienced, both in partner countries in Europe and beyond.

# Lesson Plan 1: "Recycling Warriors: Reducing Waste"

**Introduction:**

- Start by greeting the students and introducing the topic: Practical actions for environmental protection, focusing on waste reduction and recycling.
- Discuss the importance of waste reduction and recycling in protecting the environment.
- Briefly introduce the learning goals for the lesson.

  https://www.youtube.com/watch?v=IsAg-JqJnA8

**Activity 1: Icebreaker - Environmental Charades (15 minutes)**

- Divide students into mixed groups of 5.
- Each group takes turns acting out environmental actions or concepts (e.g., recycling, planting trees) while others guess.
- Encourage creativity and laughter to create a relaxed atmosphere.

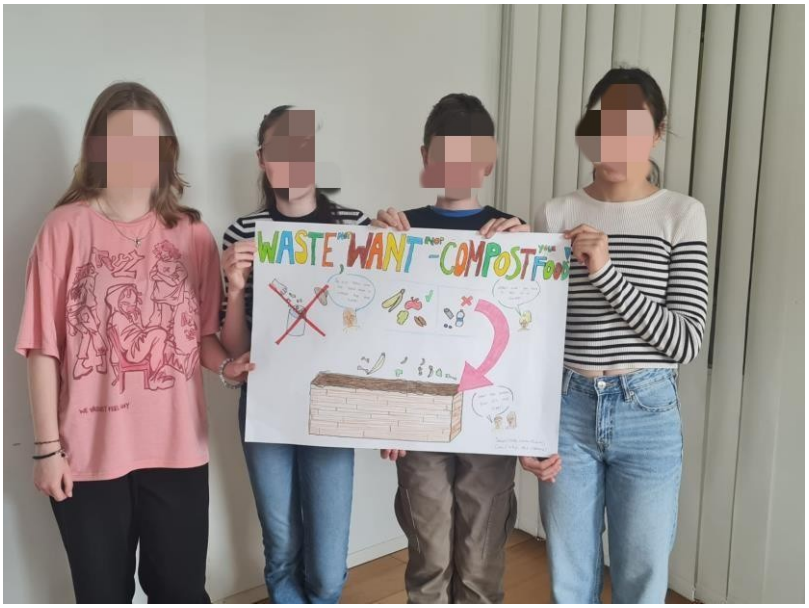
**Warm-Up Activity: Waste Audit (15 minutes)**

- Hand out a worksheet to each student with questions about their daily waste habits (e.g., What items do you typically throw away? How do you dispose of them?).
  ***WORKSHEET A***
- Instruct students to fill out the worksheet individually, reflecting on their own waste habits.
- After completion, encourage students to share their responses with a partner from a different country. This promotes cross-cultural exchange and sharing of ideas.

**Hands-On Group Work: Designing Recycling Posters (30 minutes)**

**Instructions:**

1. **Group Formation:**
   - Divide the students into mixed-nationality groups of 5.
   - Each group will be responsible for creating a recycling poster based on their assigned waste sorting category.
2. **Materials:**
   - Provide each group with a large sheet of paper or poster board.
   - Supply markers, crayons, colored pencils, or any other art supplies needed for poster design.
3. **Group Tasks:**
   - Group 1 (Sorting Paper): Focus on practical ways to recycle paper and reduce paper waste.
   - Group 2 (Sorting Plastic): Emphasize effective plastic recycling methods and reducing plastic consumption.
   - Group 3 (Sorting Glass): Highlight the importance of glass recycling and ways to reuse glass items.
   - Group 4 (Sorting Organic Waste): Explore composting techniques and ways to minimize food waste.
4. **Designing the Poster:**
   - Encourage students to brainstorm ideas related to their assigned waste sorting category.
   - Each group should incorporate illustrations, key points, and catchy slogans to convey their message effectively.
5. **Cultural Exchange:**
   - While designing their posters, encourage students to discuss cultural differences in waste management practices within their assigned waste sorting category.
   - Share ideas and insights from different countries to incorporate into the poster designs.
6. **Presentation:**
   - After designing their posters, each group will present their creation to the class.
   - Allow time for groups to explain the significance of their poster design and the practical actions it promotes.
7. **Reflection:**
   Conclude the activity with a brief discussion on what students learned from designing the posters and collaborating with peers from different countries.


WASTE, WANT -COMPOST


THE FLINTSTONES
PLASTIC
YES


REDUCE
REUSE
RECYCLE
1996


**Reflection: Sharing Experiences (15 minutes)**

- Lead a class discussion on the group presentations.
- Encourage students to reflect on their own waste reduction and recycling habits.
- Discuss any challenges they faced during the group activity and how they overcame them.
- Ask students to share one practical action they can take to reduce waste in their daily lives.
- Conclude by summarizing key points and reinforcing the importance of waste reduction and recycling.

**Conclusion:**

- Thank the students for their participation and engagement in the lesson.
- Remind them of the significance of their individual actions in protecting the environment.
- Encourage them to continue practicing waste reduction and recycling habits at home and in their communities.

**Materials Needed:**

- Pen and paper for each student
- Worksheets for the warm-up activity
- Waste sorting bins or designated areas for recycling (if available)

**WORKSHEET A**

**Waste Habits Worksheet**

**Name: _____**

**Instructions: Please answer the following questions about your daily waste habits by ticking the appropriate boxes.**

1. What items do you typically throw away?
   - Food scraps
   - Plastic bottles
   - Paper
   - Glass bottles/jars
   - Aluminum cans
   - Plastic bags
   - Other (please specify): _____
2. How do you dispose of your waste?
   - Trash bin
   - Recycling bin
   - Compost bin
   - Donate items to charity
   - Reuse items for another purpose
   - Other (please specify): _____
3. Do you separate your waste for recycling?
   - Yes
   - No
4. If yes, what types of waste do you separate for recycling?
   - Paper
   - Plastic
   - Glass
   - Metal
   - Other (please specify): _____
5. What do you think are the biggest challenges in reducing waste in your daily life?
   - Lack of recycling facilities
   - Limited knowledge about recycling
   - Convenience of throwing everything in one bin
   - Cultural habits/traditions
   - Other (please specify): _____
6. What actions can you take to reduce waste in your daily life?
   - Use reusable shopping bags
   - Carry a reusable water bottle
   - Avoid single-use plastic items
   - Compost food scraps
   - Recycle paper, plastic, glass, and metal
   - Reduce food waste by meal planning
   - Other (please specify): _____

7. How do you feel about the impact of waste on the environment?
    - Concerned
    - Indifferent
    - Motivated to make a change
    - Other (please specify): _____

Thank you for completing this worksheet! Your responses will help us better understand waste habits and how we can work together to reduce waste in our daily lives.

**Creating an Effective Recycling Poster:**

**Group 1 (Sorting Paper):**

**Helpful Ideas:**

1. Use bright colors and big words.
2. Put pictures of trees, paper, and bins for recycling.
3. Write neatly and make sure it's easy to understand.
4. Tell fun facts about recycling paper to teach people.

***Slogan ideas:***

1. *"Think before you print, save a tree!"*
2. *"Paper's journey doesn't end with one use, recycle and reuse!"*
3. *"Double-sided is double smart, let's make every page count!"*
4. *"Go digital, save paper, save the planet!"*

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**Group 2 (Sorting Plastic):**

**Helpful Ideas:**

1. Show pictures of plastic bottles, bags, and the ocean to explain why we need to recycle plastic.
2. Write in a way that makes people want to use less plastic.
3. Put links or codes so people can learn more about recycling plastic.
4. Make a picture story showing why plastic recycling is important.

***Slogan ideas:***

1. *"Say no to plastic, yes to a cleaner Earth!"*
2. *"Reuse, refuse, recycle - plastic's not fantastic!"*
3. *"Choose wisely, plastic-free is the way to be!"*
4. *"Recycle plastics, make a world of difference!"*

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**Group 3 (Sorting Glass):**

**Helpful Ideas:**

1. Put colorful pictures of glass bottles, jars, and where they recycle glass.
2. Write numbers showing why recycling glass is good, like saving energy and less trash.
3. Use words from people who like recycling glass in your area.
4. Make games or things people can do on your poster to learn about glass recycling.

***Slogans:***

1. *"Glass is class, let's keep it in the loop!"*
2. *"From bottle to bottle, let's recycle our glass!"*
3. *"Clear your conscience, recycle your glass!"*
4. *"Reduce, reuse, recycle - glass makes it easy!"*

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**Group 4 (Sorting Organic Waste):**

**Helpful Ideas:**

1. Show pictures of compost bins, gardens, and good soil to show how composting works.
2. Give easy steps for how to start composting at home and what to put in the compost.
3. Use pictures to show how food turns into compost.
4. Ask people on your poster to start composting and help make less food waste.

***Slogans:***

1. *"Food scraps to garden gold, composting is a story untold!"*
2. *"Waste not, want not - compost your food!"*
3. *"Reduce your plate, compost your waste!"*
4. *"From kitchen to garden, let's turn food waste into soil!"*

# Lesson Plan 2: "Eco Engineers: Water Resource Management"

**GENERAL LEARNING GOALS:**

- Students will grasp the importance of responsible water resource management in environmental conservation.
- Students will develop practical strategies for conserving and protecting water resources.

**LAUNCH TIME:** At the beginning of the school day.

**AGE GROUP:** 5th-8th graders.

**APPROXIMATE NEEDED TIME:** Two 45-minute sessions (two consecutive school days).

**LEARNING SPACES:**

- Classroom for the initial discussion.
- Outdoor area with access to a water source (e.g., a pond, stream, or school garden) for fieldwork.

**METHODOLOGIES:**

- Discussion: Classroom discussion.
- Hands-on Learning: Practical water resource conservation activities.
- Group Work: Collaborative work in pairs or small groups.
- Research and Presentation: Independent research and group presentations.

**TOOLS AND RESOURCES:**

- Visual aids (images of water pollution, water conservation tips).
- Whiteboard and markers.
- Access to the outdoor area with a water source.

**SCAFFOLDING:**

Session 1 (45 minutes): Introduction and Fieldwork Introduction (10 minutes)

- Discuss the significance of responsible water resource management in environmental protection.
- Explain the objectives of the lesson. Fieldwork (25 minutes)
- Take students to the outdoor area with a water source.
- Observe the water source and discuss its importance.
- Identify signs of pollution or misuse of water resources.
- Discuss the impact of water wastage.

**Reflection (10 minutes)**

- Students reflect on their fieldwork experience.
- Discuss the importance of conserving and protecting water resources.

**Session 2 (45 minutes): Group Research and Presentations Research and Group Work (20 minutes)**

- Assign each group a specific aspect of water resource management to research (e.g., pollution prevention, responsible consumption).
- Groups gather information on practical actions and their impact.

**Group Presentations (20 minutes)**

- Each group presents their findings and recommended actions to the class.
- Discuss the collective impact of implementing these actions on water resource conservation.

**END PRODUCTS AND BENCHMARKS:**

- Water Resource Action Plan: Each group creates a plan detailing practical actions for water resource conservation in a specific area (e.g., home, school, community).
- Reflection Essay: Each student writes an essay reflecting on their personal experience and the importance of responsible water resource management in environmental protection.

**EUROPEAN KEY COMPETENCES:**

- Communication: Presenting findings and ideas effectively.
- Learning to Learn: Researching and acquiring new knowledge independently.
- Citizenship: Fostering a sense of environmental responsibility and global citizenship.
- Digital Competence: Using digital resources for research and creating presentations.

**SUBJECTS INVOLVED:**

- Environmental Science
- Citizenship Education
- Geography

**CONTENTS:**

- Responsible water resource management and its role in environmental conservation.
- Practical water resource conservation practices.

**ABILITIES/SKILLS:**

- Research and presentation skills.
- Critical thinking and problem-solving abilities.
- Teamwork and collaboration.

**COMPETENCIES:**

- Environmental awareness and responsibility.
- Effective communication and presentation skills.
- Critical thinking and problem-solving skills.

**RISK MANAGEMENT:**

- Ensure students' safety during fieldwork near water sources by providing proper supervision.
- Educate students on safe practices around water and potential hazards.
- Address any allergies or health concerns among students related to outdoor activities and water resources.
- Ensure students do not disturb the natural ecosystem during fieldwork and follow environmental guidelines.

# Lesson Plan 3: "Energy Detectives: Reducing our Carbon Footprint"

**GENERAL LEARNING GOALS:**

- Students will comprehend the significance of energy conservation in mitigating climate change.
- Students will develop practical habits to reduce energy consumption.

**LAUNCH TIME:** At the beginning of the school day.

**AGE GROUP:** 5th-8th graders

**APPROXIMATE NEEDED TIME:** Two 45-minute sessions (two consecutive school days).

**LEARNING SPACES:**

- Classroom for the initial discussion and group activities.
- Classroom or computer lab for research and presentations.

**METHODOLOGIES:**

- Discussion: Classroom discussion.
- Hands-on Learning: Practical energy-saving activities.
- Group Work: Collaborative work in pairs or small groups.
- Research and Presentation: Independent research and group presentations.

**TOOLS AND RESOURCES:**

- Visual aids (images, energy-saving tips).
- Whiteboard and markers.
- Access to computers and the internet for research.

**SCAFFOLDING:**

**Session 1 (45 minutes): Introduction and Energy Conservation Activities**
**Introduction (10 minutes)**

- Discuss the significance of energy conservation in reducing carbon emissions and combating climate change.
- Explain the objectives of the lesson.

**Energy Conservation Activities (25 minutes)**

- Show examples of energy-saving practices.
- Demonstrate practical actions, such as turning off lights, unplugging devices, and reducing heating/cooling usage.
- Calculate potential energy savings from these actions.

**Reflection (10 minutes)**

- Students reflect on their energy-saving activities.
- Discuss the impact of energy conservation on the environment and climate.

**Session 2 (45 minutes): Group Research and Presentations**

Research and Group Work (20 minutes)

- Assign each group a specific area of energy conservation to research (e.g., home, school, transportation).
- Groups gather information on practical actions and their impact. Group Presentations (20 minutes)
- Each group presents their findings and recommended actions to the class.
- Discuss the collective impact of implementing these actions.

**END PRODUCTS AND BENCHMARKS:**

- Energy Action Plan: Each group creates a plan detailing practical energy-saving actions for a specific area (home, school, transportation).
- Reflection Essay: Each student writes an essay reflecting on their personal experience and the importance of energy conservation in reducing their carbon footprint.

**EUROPEAN KEY COMPETENCES:**

- Communication: Presenting findings and ideas effectively.
- Learning to Learn: Researching and acquiring new knowledge independently.
- Citizenship: Fostering a sense of environmental responsibility and global citizenship.
- Digital Competence: Using digital resources for research and creating presentations.

**SUBJECTS INVOLVED:**

- Environmental Science
- Citizenship Education
- Science and Technology

**CONTENTS:**

- Energy conservation and its role in mitigating climate change.
- Practical energy-saving practices.

**ABILITIES/SKILLS:**

- Research and presentation skills.
- Critical thinking and problem-solving abilities.
- Teamwork and collaboration.

**COMPETENCIES:**

- Environmental awareness and responsibility.
- Effective communication and presentation skills.
- Critical thinking and problem-solving skills.

**RISK MANAGEMENT:**

- Ensure students' safety during energy-saving activities by providing proper guidance.
- Educate students on safe handling of appliances and devices.
- Address any allergies or health concerns among students related to energy-saving materials or activities.
- Ensure that electrical devices are safely disconnected before handling them during activities.

# Lesson Plan 4: "Sustainable School Garden"

**GENERAL LEARNING GOALS:**

- Students will understand the importance of sustainable gardening practices in environmental protection.
- Students will develop practical gardening skills and eco-conscious habits.

**LAUNCH TIME:** At the beginning of the school day.

**AGE GROUP:** 5th-8th graders

**APPROXIMATE NEEDED TIME:** Two 45-minute sessions (two consecutive school days).

**LEARNING SPACES:**

- School garden or outdoor space.
- Classroom for the recap and discussion.

**METHODOLOGIES:**

- Hands-on Learning: Practical gardening activities.
- Discussion: Classroom discussion.
- Group Work: Collaborative work in pairs or small groups.
- Reflection: Encouraging students to reflect on their experiences.

**TOOLS AND RESOURCES:**

- Gardening tools (shovels, gloves, watering cans, etc.).
- Seeds or young plants.
- Soil and compost.
- Whiteboard and markers.

**SCAFFOLDING:**

**Session 1 (45 minutes): Introduction and Gardening Activity**

**Introduction (10 minutes)**

- Discuss the importance of sustainable gardening in environmental protection.
- Explain the objectives of the lesson. Garden Preparation (20 minutes)
- Divide students into groups.
- Each group prepares a designated garden bed, plants seeds or young plants, and waters them.
- Discuss the role of plants in air purification and carbon sequestration.

**Reflection (15 minutes)**

- Students reflect on their gardening experience.
- Discuss the impact of creating green spaces on the environment.

**Session 2 (45 minutes): Classroom Discussion and Reflection**

**Recap and Discussion (20 minutes)**

- Return to the classroom.
- Review the practical gardening activities from the previous day.
- Discuss the significance of their actions and the importance of maintaining the garden sustainably.

**Group Discussion and Reflection (20 minutes)**

- Students discuss sustainable gardening practices.
- Share ideas on how they can contribute to maintaining the school garden.

**END PRODUCTS AND BENCHMARKS:**

- Garden Report: Each group will create a short report about their gardening activity.
- Reflection Essay: Each student will write an essay reflecting on their personal experience and the impact of their actions on the environment.

**EUROPEAN KEY COMPETENCES**:

- Communication: Presenting findings and ideas effectively.
- Learning to Learn: Researching and acquiring new knowledge independently.
- Citizenship: Fostering a sense of environmental responsibility and global citizenship.
- Digital Competence: Using digital resources for research and presentations.

**SUBJECTS INVOLVED:**

- Environmental Science
- Citizenship Education

**CONTENTS:**

- Sustainable gardening practices.
- Environmental impact of green spaces.

**ABILITIES/SKILLS:**

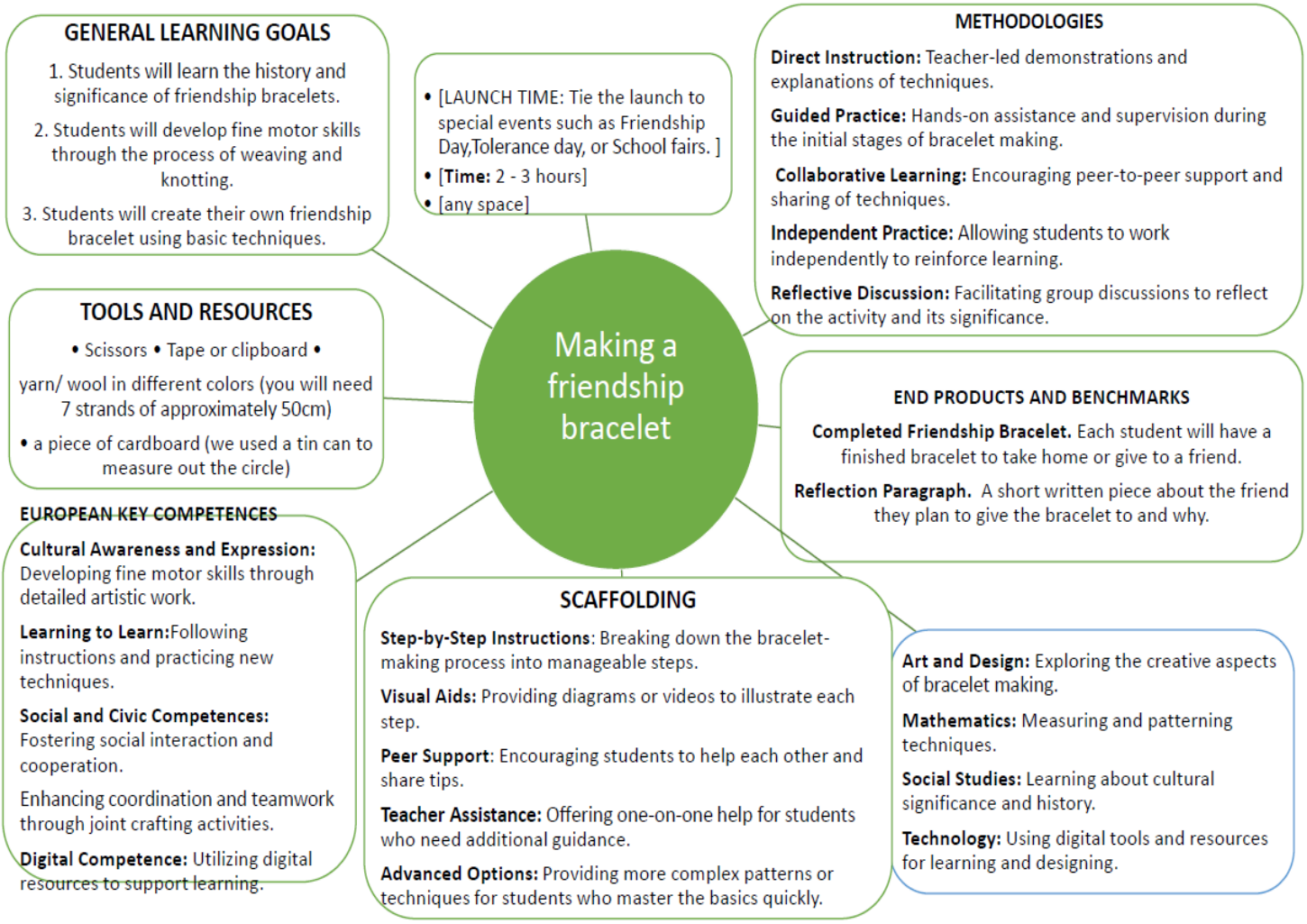
- Gardening skills.
- Research and presentation skills.
- Critical thinking and problem-solving abilities.
- Teamwork and collaboration.

**COMPETENCIES:**

- Environmental awareness and responsibility.
- Effective communication and presentation skills.
- Critical thinking and problem-solving skills.

**RISK MANAGEMENT:**

- Ensure students' safety during gardening activities with proper supervision.
- Provide clear instructions on handling tools and materials safely.
- Check for any allergies or health concerns among students before outdoor activities.
- Be prepared for unexpected weather changes and have a backup plan if needed.


Making a friendship bracelet
GENERAL LEARNING GOALS
1. Students will learn the history and significance of friendship bracelets.
2. Students will develop fine motor skills through the process of weaving and knotting.
3. Students will create their own friendship bracelet using basic techniques.
• [LAUNCH TIME: Tie the launch to special events such as Friendship Day,Tolerance day, or School fairs. ]
• [Time: 2 - 3 hours]
• [any space]
METHODOLOGIES
Direct Instruction: Teacher-led demonstrations and explanations of techniques.
Guided Practice: Hands-on assistance and supervision during the initial stages of bracelet making.
Collaborative Learning: Encouraging peer-to-peer support and sharing of techniques.
Independent Practice: Allowing students to work independently to reinforce learning.
Reflective Discussion: Facilitating group discussions to reflect on the activity and its significance.
TOOLS AND RESOURCES
• Scissors • Tape or clipboard •
yarn/ wool in different colors (you will need 7 strands of approximately 50cm)
• a piece of cardboard (we used a tin can to measure out the circle)
END PRODUCTS AND BENCHMARKS
Completed Friendship Bracelet. Each student will have a finished bracelet to take home or give to a friend.
Reflection Paragraph. A short written piece about the friend they plan to give the bracelet to and why.
EUROPEAN KEY COMPETENCES
Cultural Awareness and Expression: Developing fine motor skills through detailed artistic work.
Learning to Learn:Following instructions and practicing new techniques.
Social and Civic Competences: Fostering social interaction and cooperation.
Enhancing coordination and teamwork through joint crafting activities.
Digital Competence: Utilizing digital resources to support learning.
SCAFFOLDING
Step-by-Step Instructions: Breaking down the bracelet-making process into manageable steps.
Visual Aids: Providing diagrams or videos to illustrate each step.
Peer Support: Encouraging students to help each other and share tips.
Teacher Assistance: Offering one-on-one help for students who need additional guidance.
Advanced Options: Providing more complex patterns or techniques for students who master the basics quickly.
Art and Design: Exploring the creative aspects of bracelet making.
Mathematics: Measuring and patterning techniques.
Social Studies: Learning about cultural significance and history.
Technology: Using digital tools and resources for learning and designing.

**CONTENTS** Introduction (10 minutes):

- Greeting and Attendance: Take attendance and greet students.
- Introduction to Friendship Bracelets:
- Discuss the origin of friendship bracelets and their significance in various cultures.
- Show examples of completed friendship bracelets.
- Explain that the bracelets are often exchanged as a sign of friendship and goodwill.

**INSTRUCTION** (15 minutes):

- Materials and Preparation:
- Hand out materials to each student.
- Demonstrate how to measure and cut the embroidery floss (each piece should be about 24 inches long; use three different colors for simplicity).

**STARTING THE BRACELET:**

- Show students how to tie the ends of the floss together in a knot, leaving about 2 inches at the top.
- Attach the knot to a stable surface using tape or a clipboard.

**BASIC KNOTTING TECHNIQUE:**

- Demonstrate the basic knotting technique (forward knot) step-by-step:
- Using a tin can or similar, cut out a cardboard circle.
- Draw 4 lines across your disc to create 8 equal segments.
- Make a hole in the middle.
- Cut 1cm into each line you drawn – so you have approximately 1cm cut, 2 cm uncut and then the hole.
- Take your seven strands of yarn and tie a knot at one end.
- Thread your strands through the hole in the disc.
- Take one strand at a time and slot it through one of the 1 cm strips. You should have 7 strands tucked in, with one “space slot”.
- Take the 3rd strand to the LEFT of the spare slot, lift it up, bring it down and put across the spares slot. This creates a new space.
- Rotate your disc for this to point down and pick the strand 3 to the left and fold down. 10.Repeat.
- 11.Your yarn friendship bracelet will begin to “grow” on the other side of the disc, give it a gentle tug every so often.

**GUIDED PRACTICE** (20 minutes):

- Supervised Practice:
- Have students start their own bracelets, following the steps demonstrated.
- Walk around the classroom, providing assistance and correcting technique as needed.
- Encourage students to help each other and share tips.

**INDEPENDENT PRACTICE** (40 minutes):

- Continuation:
- Allow students to continue working on their bracelets independently.
- Introduce variations, such as adding beads or trying different knot patterns, for advanced students.

**CONCLUSION** (5 minutes):

- Clean Up:
- Guide students to clean up their workspaces.
- Collect leftover materials and store them properly.

**SHARING AND REFLECTION:**

- Invite students to share their progress and any challenges they faced.
- Discuss what they enjoyed about the activity and how they might use their new skills.

**CLOSING:**

- Remind students that they can continue working on their bracelets at home.
- Encourage them to give the bracelet to a friend as a symbol of their friendship.

**ASSESSMENT:**

- Observe students' participation and engagement during the activity.
- Assess their ability to follow the steps and create basic knots.
- Provide positive feedback and suggestions for improvement.

**EXTENSIONS:**

- For homework, students can research different types of friendship bracelet patterns and try making them.
- Students can write a short paragraph about the friend they plan to give the bracelet to and why.

**DIFFERENTIATION:**

- For students needing additional support, provide one-on-one guidance.
- Offer advanced techniques and patterns for students who finish early or need a challenge.
- This lesson plan aims to be both educational and enjoyable, fostering creativity, fine motor skills, and the spirit of friendship among students.

## ABILITIES AND SKILLS

- Enhancing fine motor skills through detailed work. Fostering creativity in design.
- Developing problem-solving skills for pattern creation. Encouraging collaboration and teamwork.
- Improving communication by teaching and sharing techniques. Increasing digital literacy through online resources.

## COMPETENCIES

- Artistic expression and creativity.
- Cultural awareness and appreciation.
- Practical application of mathematical concepts.
- Building social connections and community engagement. Lifelong learning and skill development.
- Entrepreneurial understanding of handmade crafts.

# CHILLING WITH THE MILSHAKES

## GENERAL LEARNING GOALS

Students will engage in a series of outdoor challenges to enhance and apply their motor skills.

Students will discover the connection between physical activity and environmental stewardship.

Students will adopt and maintain a healthier lifestyle focusing on physical activity, nutrition, and mental well-being.

- [LAUNCH TIME: October
- **[Time:** 1 day (4-5 hours)
- Outdoor area or school playground for practical challenges.
- Town for photo challenge.
- Main Hall for discussion, reflection, and presentation.

## METHODOLOGIES

**Hands-on Learning**: Engage students in outdoor physical challenges.

**Group Work:** Promote collaboration in pairs or small groups.

**Presentation:**Encourage students to communicate their findings and insights.

## TOOLS AND RESOURCES

Outdoor space or playground for activities.* Cones, balls, ropes, and other equipment for motor skills development.* Outdoor speaker. *Photo cameras.* Presenter.*Milk and fruits for milkshakes.

## END PRODUCTS AND BENCHMARKS

End Products: Improved physical fitness and enhanced motor skills.*Creative photos capturing nature and motor skill activities.*Nutritious milkshakes prepared by students.

**Benchmarks**: Successfully performing various motor skill activities.*Demonstrating improved coordination, balance, and spatial awareness.* Reflecting on personal progress and areas for improvement.*Producing creative and thoughtful photographs during the scavenger hunt. *Preparing healthy milkshakes with nutrient-dense ingredients.

## EUROPEAN KEY COMPETENCES

**Learning to learn**: Reflecting on their performance and improvements in motor skills.

Social and civic competences: Working together in pairs or teams, following rules, and respecting others.

**Sense of initiative and entrepreneurship**: Taking the initiative to participate and complete the activities, trying different strategies.

## SCAFFOLDING

**Introduction (10 minutes)**:

Discuss the importance of advanced motor skills and their role in improving physical fitness.

Present the objectives of the day.

**Motor Skills Activities (1 hour)**:Organize students into groups and perform activities such as Lift a Limb etc.

**Nature Scavenger Hunt (1-2 hours)**: Combine motor skills with nature exploration. Create a list of items for students to find around town and capture photos.

**Milkshakes (30 minutes)**: Students prepare healthy milkshakes using nutrient-dense ingredients.

**Group Discussion and Reflection (30 minutes)**: Facilitate group discussions on the interplay betweenmental well-being. Encourage students to share their photos and experiences.

Have each student write a detailed reflection on their personal experiences and newfound understanding of the topic.or techniques for students who master the basics quickly

Physical Education: Developing motor skills, coordination, balance, and spatial awareness.

**Health Education**: Understanding the importance of physical activity and fitness.

**Environmental Studies**: Exploring nature and understanding environmental stewardship.

**Art**: Photography and creative expression.

CONTENTS

**Introduction (10 minutes)**

● Discuss the importance of advanced motor skills and their role in improving physical fitness.
● Present the objectives of the of the day

**Motor Skills Activities (1 hour)**

● Organize students into groups.
■ Lift a limb (While on their hands and knees, ask students to lift one limb at a time and balance for 5 seconds. Make it more difficult by lifting two, and then again by going up unto

their feet.
■ Balance and transfer. Balance on one leg and transfer balls across the midline. Switch legs and repeat.
■ Dodge the balls. Thraw balls at your students feet that they have to jump and dodge
■ Spin and drop. Place different sized objects on one side. Have your child pick it up with their feet spin around and place it down. Then spin back and get to the next one.
■ Roll and Push up. Roll along the ground and each time your student gets a cone they must do a push up and retriece,

or hot away the object under the cone. Make sure they roll both directions.
■ Catch and roll. As your student runs toward you, either thraw a ball and the child has to do the opposite back to you.
■ Sit up and Cattepillar. Place small balls at your students head. Have them collect a ball, sit up and do a caterpillar walk out to place the balls on a sheet of paper (or plastic plates)
■ Crab Walk and Kick. Place small plastic balls on a raised surface and have your student lift up into crab position and kick of the balls one by one. Challenge them to kick the balls on the opposite

side of their leg.

■ Figure of 8 walk. Place 3 cones or other objects in a line. Ask your student catch a ball, then on the next round they thraw it back.

Reflection (5 minutes)
● Prompt students to reflect on their advanced outdoor motor skill activities.
● Initiate a brief discussion on the physical demands of these activities and their potential benefits.

**Nature Scavenger Hunt.: (1-2 hours)**
Organize students into groups:
Combine motor skills with nature exploration. Create a list of items for kids to find around town, such as specific leaves, rocks, or flowers, and capture them in action as they search.
Some examples:
1. A completely empty space;
2. Something wet;
3. Something with rust;
4. A close up of someone's face filling the entire photo;
5. Something scary;
6. A photo showing motion;
7. A fascinating shadow;
8. A collection of 7 different items;
9. Something brand new;
10. Someone else taking a photo;
11. Something with wheels; 12.Something tiny;

13.A very relaxing place;
14. A number;
15. Something with water in it;

16.Sunglasses on someone's head;
17.Everyone reading a book;
18.A painted fingernail;
19. A rubber band;
20. Something that starts with F;
21.Something purple;
22.A right shoe;
23.A triangle;
24. A yellow flower;
25. Something that makes noise.

**Milkshakes: (30 min)**





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| | Encouraging students to prepare milkshakes with a focus on a healthy lifestyle is a great way to teach them about making nutritious choices while still enjoying tasty treats. Here's a goal that incorporates health-conscious elements:<br>Students should choose a variety of nutrient-dense ingredients for their milkshakes, such as fruits, vegetables, nuts, or seeds.<br>Encourage the inclusion of ingredients rich in vitamins, minerals, and antioxidants.<br>Group Discussion and Reflection (30 minutes)<br>●Facilitate group discussions focusing on the interplay between advanced motor skills, physical health, and environmental well-being.<br>●Encourage students to share photos they made, their insights and experiences.<br><br>Individual Reflection (10 minutes)<br>●Have each student write a detailed reflection on their personal experiences and newfound understanding of the topic. |
| **ABILITIES/SKILLS** | • Enhancing gross motor skills through physical activities.<br>• Developing coordination, balance, and spatial awareness.<br>• Encouraging teamwork and communication skills.<br>• Cultivating creativity through photography. Learning about healthy nutrition choices. |

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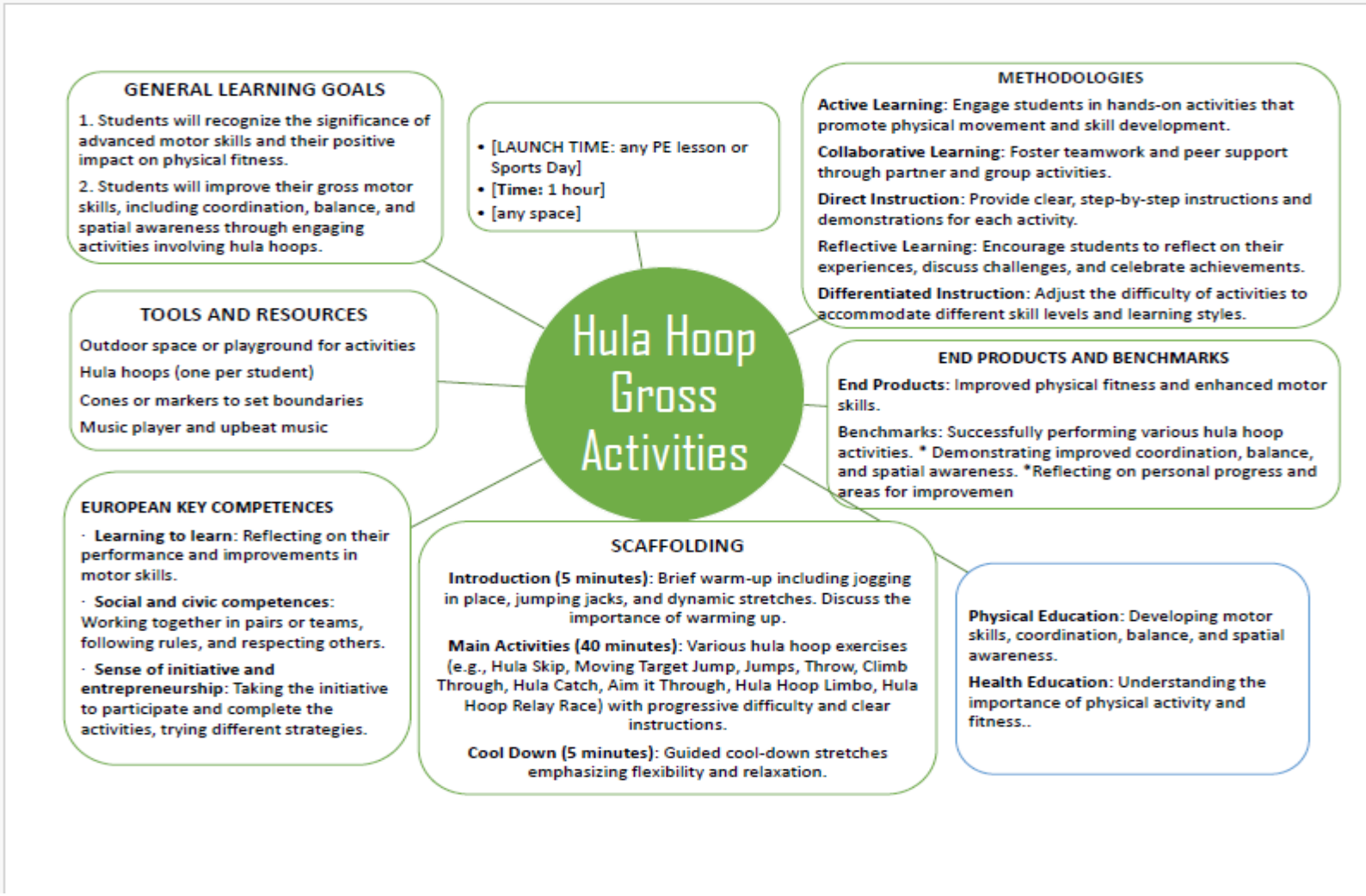
| **COMPETENCIES** | **Physical Competence:** Improved motor skills, coordination, balance, and spatial awareness.<br>**Social Competence:** Collaboration, teamwork, and communication.<br>**Learning to Learn:** Reflecting on performance and setting goals for improvement.<br>**Environmental Awareness:** Understanding and appreciating nature.<br>**Health Awareness:** Making nutritious food choices. |


Hula Hoop Gross Activities
GENERAL LEARNING GOALS
1. Students will recognize the significance of advanced motor skills and their positive impact on physical fitness.
2. Students will improve their gross motor skills, including coordination, balance, and spatial awareness through engaging activities involving hula hoops.
• [LAUNCH TIME: any PE lesson or Sports Day]
• [Time: 1 hour]
• [any space]
METHODOLOGIES
Active Learning: Engage students in hands-on activities that promote physical movement and skill development.
Collaborative Learning: Foster teamwork and peer support through partner and group activities.
Direct Instruction: Provide clear, step-by-step instructions and demonstrations for each activity.
Reflective Learning: Encourage students to reflect on their experiences, discuss challenges, and celebrate achievements.
Differentiated Instruction: Adjust the difficulty of activities to accommodate different skill levels and learning styles.
TOOLS AND RESOURCES
Outdoor space or playground for activities
Hula hoops (one per student)
Cones or markers to set boundaries
Music player and upbeat music
END PRODUCTS AND BENCHMARKS
End Products: Improved physical fitness and enhanced motor skills.
Benchmarks: Successfully performing various hula hoop activities. * Demonstrating improved coordination, balance, and spatial awareness. *Reflecting on personal progress and areas for improvemen
EUROPEAN KEY COMPETENCES
· Learning to learn: Reflecting on their performance and improvements in motor skills.
· Social and civic competences: Working together in pairs or teams, following rules, and respecting others.
· Sense of initiative and entrepreneurship: Taking the initiative to participate and complete the activities, trying different strategies.
SCAFFOLDING
Introduction (5 minutes): Brief warm-up including jogging in place, jumping jacks, and dynamic stretches. Discuss the importance of warming up.
Main Activities (40 minutes): Various hula hoop exercises (e.g., Hula Skip, Moving Target Jump, Jumps, Throw, Climb Through, Hula Catch, Aim it Through, Hula Hoop Limbo, Hula Hoop Relay Race) with progressive difficulty and clear instructions.
Cool Down (5 minutes): Guided cool-down stretches emphasizing flexibility and relaxation.
Physical Education: Developing motor skills, coordination, balance, and spatial awareness.
Health Education: Understanding the importance of physical activity and fitness..

CONTENTS

**Introduction (5minutes)**
**Warm-Up:**

●Begin with a brief warm-up, including jogging in place, jumping jacks, and dynamic stretches.

●Discuss the importance of warming up before engaging in physical activities.
Main Activities (40 minutes):

●Hula skıp. Great for body awareness, motor planning, vestibular stimulation and bilateral coordination. It involves swinging a hula hoop around your body while jumping over it like a skipping rope.

●Moving target jump. Bilateral coordination, proprioception and motor planning. One person moves hula on the ground, another has to jump in it and out.

●Jumps. Godd for spatial awareness, vestibular and proprioceptive stimulation. Create a hopscotch grid using hula hoops. Students take turns hopping through the grid, maintaining balance and coordination. You can challenge them by hopping on both legs, one leg.

●Throw. Hand eye coordination, body awereness, bilateral coordination and motor planning. Studens in pairs throw hula to each other

●Climb through. Great for spatial and body awereness, upper body strength and proprioception. Students make a tunnel with Hulas 10-20 cm above the ground and other students should go through the tunnel.

●Hula catch. Good for hand eye coordination, spatial awereness and motor planning. Students toss beanbags or soft balls into the hoops, and onother student is trying to catch it.

●Aim it through. Good for balance, bilateral coordination, aiming, hand, eye coordination, proprioception. Place hula hoops at varying distances. Students toss beanbags or soft balls into the hoops, aiming for different point values.

●Hula Hoop Limbo. Great for spatial and body awereness, upper body strength and proprioception . Set up a limbo bar using a hula hoop. Students take turns bending backward and passing under the hoop without touching it.

●Hula Hoop Relay Race. Great for spatial and body awereness and proprioception. Divide

students into teams. Set up a relay race course with cones. Each student must hula hoop to a

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| | designated point and then pass the hoop to the next team member.<br>Cool Down (5 minutes):<br>Cool-Down Stretches: Guide students through cool-down stretches, emphasizing flexibility and relaxation.<br>DİSCUSSİON: Discuss with students what they enjoyed and learned during the hula hoop activities. Ask about the challenges they faced and how they overcame them.<br>ADAPTATİONS:<br>Adjust the difficulty of activities based on the age and skill level of the students. Provide variations to accommodate different learning styles and abilities.<br>Ensure that there is adequate space and supervision to safely conduct the activities.<br>This lesson plan offers a variety of hula hoop activities to engage students, promote gross motor skill development, and encourage physical activity in a fun and interactive way.<br><br>. |
| **ABILITIES/SKILLS** | Enhancing gross motor skills through physical activities. Developing coordination, balance, and spatial awareness. Encouraging teamwork and communication skills. |
| **COMPETENCIES** | **Physical Competence:** Improved motor skills, coordination, balance, and spatial awareness.<br>**Social Competence**: Collaboration, teamwork, and communication.<br>**Learning to Learn:** Reflecting on performance and setting goals for improvement. |

# Lesson Plan 5: Ringo Game for Motor Skills Development

**General Learning Goals:**

- Students will improve their gross motor skills, including throwing, catching, and hand-eye coordination.
- Students will understand the importance of teamwork, fair play, and safety in physical activities.

**Tools and Resources:**

- Ringo rings (soft, lightweight flying rings).
- Cones or markers to set boundaries.
- Open playing area (outdoor or indoor gymnasium).

**European Key Competences:**

1. **Learning to learn**:
   - Reflecting on their performance and improvements in motor skills.
2. **Social and civic competences**:
   - Working together in teams, following rules, and respecting others.
3. **Sense of initiative and entrepreneurship**:
   - Taking the initiative to participate and complete the activities, trying different strategies.

**Launch Time:**

any lesson

**Approximate Needed Time:**

45 minutes

**Learning Spaces:**

Outdoor area or indoor gymnasium gym

**Methodologies:**

1. **Active Learning**:
   - Engage students in hands-on activities that promote physical movement and skill development.
2. **Collaborative Learning**:
   - Foster teamwork and peer support through partner and group activities.
3. **Direct Instruction**:
   - Provide clear, step-by-step instructions and demonstrations for each activity.
4. **Reflective Learning**:
   - Encourage students to reflect on their experiences, discuss challenges, and celebrate achievements.

5. **Differentiated Instruction**:
    - Adjust the difficulty of activities to accommodate different skill levels and learning styles.

**End Products and Benchmarks:**

**End Products**:
- Improved throwing, catching, and hand-eye coordination skills.
- Enhanced teamwork and sportsmanship.

**Benchmarks**:
- Successfully performing various Ringo game skills.
- Demonstrating improved coordination and teamwork.
- Reflecting on personal progress and areas for improvement.

**Subjects Involved:**

**Physical Education**: Developing motor skills, coordination, balance, and spatial awareness.
**Health Education**: Understanding the importance of physical activity and fitness.
**Social Studies**: Learning about teamwork and fair play.

**Scaffolding:**

**Introduction (5 minutes)**:
- Warm-up: Engage students in a brief warm-up routine including light stretching and jogging.
- Explanation of Ringo Game: Provide an overview of the Ringo game, explaining the rules and emphasizing the importance of teamwork, fair play, and safety.

**Main Activities (30 minutes)**:
- **Skill Demonstration (5 minutes)**:
    - Demonstrate basic throwing and catching techniques using the Ringo rings.
    - Emphasize proper body positioning, hand placement, and coordination.
- **Practice Drills (15 minutes)**:
    - Divide the students into small groups.
    - Rotate through different practice stations focusing on specific motor skills:
        - Throwing Station: Practice throwing the Ringo rings to a target.
        - Catching Station: Practice catching the Ringo rings using both hands.
        - Hand-Eye Coordination Station: Partner drills where students toss and catch the Ringo rings with increasing distance.
- **Game Play (10 minutes)**:
    - Combine the skills learned in a game of Ringo.
    - Emphasize teamwork and fair play.
    - Rotate positions within teams to allow every student to practice different motor skills.

**Cool Down (5 minutes)**:
- Cool-Down Exercises:
    - Guide students through a series of cool-down exercises to relax their muscles and prevent injury.
    - Encourage deep breathing and stretching.

**Reflection (5 minutes)**:
- Discussion:

- Gather students to discuss their experience playing Ringo.
- Ask questions about what they learned and how they felt during the game.
- Connect their experiences to the development of motor skills.

**LESSON OUTLINE:**

Introduction (5 minutes):

- Warm-up: Engage students in a brief warm-up routine to prepare their bodies for physical activity. Include light stretching and jogging.
- Explanation of Ringo Game: Provide an overview of the Ringo game, explaining the rules and emphasizing the importance of teamwork, fair play, and safety.

Main activity (30 minutes):

Skill Demonstration (5 minutes):

- Demonstrate the basic throwing and catching techniques using the Ringo rings.
- Emphasize proper body positioning, hand placement, and coordination.
- Practice Drills (15 minutes):

Divide the students into small groups.

- Rotate through different practice stations focusing on specific motor skills:
- Throwing Station: Practice throwing the Ringo rings to a target.
- Catching Station: Practice catching the Ringo rings using both hands.
- Hand-Eye Coordination Station: Partner drills where students toss and catch the Ringo rings with increasing distance.

Game Play (10 minutes):

- Combine the skills learned in a game of Ringo.
- Emphasize teamwork and fair play.
- Rotate positions within teams to allow every student to practice different motor skills.
- Cool Down (5 minutes):

Cool-Down Exercises:

- Guide students through a series of cool-down exercises to relax their muscles and prevent injury.
- Encourage deep breathing and stretching.

Reflection (5 minutes):

Discussion:

- Gather students to discuss their experience playing Ringo.
- Ask questions about what they learned and how they felt during the game.
- Connect their experiences to the development of motor skills.

Assessment:

**OBSERVATION:**

- Observe students' throwing, catching, and overall coordination during practice drills and game play.
- Provide positive feedback and constructive tips for improvement.

**TEAMWORK AND SPORTSMANSHIP:**

- Assess students' ability to work collaboratively and exhibit good sportsmanship during the game.

**ADAPTATIONS:**

- Modify the distance or complexity of drills based on the students' age and skill levels.
- Consider incorporating variations of the Ringo game to add challenges and diversity to the activities.
- By structuring the lesson plan in this way, you provide a balanced approach to skill development, physical activity, and reflection on the importance of motor skills in sports and daily activities.

**Abilities/Skills:**

- Enhancing gross motor skills through physical activities.
- Developing coordination, balance, and spatial awareness.
- Encouraging teamwork and communication skills.

**Competencies:**

- Physical Competence: Improved motor skills, coordination, balance, and spatial awareness.
- Social Competence: Collaboration, teamwork, and communication.
- Learning to Learn: Reflecting on performance and setting goals for improvement.
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The following video was realized for the final JSTE of the OPEN project in Poland:

https://drive.google.com/file/d/11wuHF_1soynKI6Y_Moh8GDi8ZH5hIPXb/view?usp=sharing

# Lesson Plan 6: ‘ The concept of 3 R : Reduce, Reuse, Recycle- the waste management hierarchy’

**GENERAL LEARNING GOALS:**

- Students will understand the concept of 3R
- Students will develop the ideas of waste reduction, reuse and recycling both at home and at school
- Students will develop the ideas of increasing the awareness of waste management hierarchy in the school community

**LAUNCH TIME :** February 2024

**APPROXIMATE NEEDED TIME:** Two 45-minute sessions

**LEARNINNG SPACES:**

- Classroom

**METHODOLOGIES:**

- Discussion : ‘word cafe method’
- Brainstorming
- Group work

**TOOLS AND RESOURCES:**

- Wastebins
- Whiteboard and markers

**SCAFFOLDING:**

**Session 1 ( 45 minutes):** Introduction and defining the concept of 3R

**Introduction (10 minutes):**

- Define with the students the word ‘waste’ and introduce the waste management hierarchy briefly
- Explain the objectives of the lesson

Activity (25 minutes) :

- Show students a sample wastebin with the waste inside

- Have students answer the question: ‘ What can be done to prevent these waste from beeing taken to the landfill?’ While groupwork students brainstorm the ideas; each group has different pieces of waste
- Students present their ideas and organise them into three topics: REDUCE, REUSE, RECYCLE

Reflection (10 minutes):

- Students reflect on their activity
- Discuss the importance of the waste management hierarchy

**Session 2 ( 45 minutes):** Classroom Discussion and Reflecion

Recap ( 10 minut):

- Review the practical activities from the previous lesson

Group discussion (35 minutes)

- ‘word cafe metod’: collecting ideas to the topic: waste readuction, reuse of rubbish and recycling; Students answer the questions: ‘ What can I presonally do to reduce waste? What can we do together?’
- Students present the ideas in public
- Organise the class voting for the best ideas; students decide to implement them at school and at home
- Brainstorm the ideas for sharing the 3R- concept with the whole school and increase students’ awareness of waste management hierarchy

**END PRODUCTS AND BENCHMARKS:**

- Poster presenting the waste management hierarchy
- Leaflets promoting ideas of waste reuse and reduction as well as recycling

**EUROPEAN KEY COMPETENCES:**

- Communication: Presenting findings and ideas effectively.
- Learning to Learn: Researching and acquiring new knowledge independently.
- Citizenship: Fostering a sense of environmental responsibility and global citizenship.
- Digital Competence: Using digital resources for research and creating posters.

**SUBJECTS INVOLVED:**

- Environmental Science
- Citizenship Education

**CONTENTS:**

- Importance of waste management hierarchy

**ABILITIES/ SKILLS:**

- Teamwork and collaboration
- Presentation skills

**COMPETENCIES:**

- Environmental awareness and responsibility
- Effective communication and presentation skills
- Critical thinking and problem-solving skills

**RISK MANAGEMENT:**

- Plan for unexpected situations
- Check for any allergies or health concerns among students before handling with waste

# Lesson Plan 7: 'Tips for Eco- friendly shopping'

**GENERAL LEARNING GOALS:**

- Students will develop Eco-friendly shopping habits
- Students are familiar with the term sustainable shopping
- Students can recognise and understand packaging symbols
- Students will promote sustainable shopping among their schoolmates

**LAUNCH TIME :** March 2024

**APPROXIMATE NEEDED TIME:** Two 45-minutes sessions

**LEARNINNG SPACES:**

- Classroom
- Supermarket

**METHODOLOGIES:**

- Discussion: Classroom discussion
- Group work
- Hands-on Learning: Practical shopping activities

**TOOLS AND RESOURCES:**

- Visual aids
- Whiteboards and markers
- Notebooks and stationery

**SCAFFOLDING:**

**Session 1 ( 45 minutes):**

**Introduction ( 10 minutes):**

- Explain the importance of Eco-friendly shopping

- Explain the objectives of the lesson

**Activity (20 minutes):**

- Show example packaging
- Present the packaging symbols
- Divide students into groups; each group receives some packaging and find the symbols on it; they discuss the impact of different packaging on the environment and brainstorm the ideas of reducing packaging during their own shopping (e.g. buying some products without packaging, drinks in the bottles instead of cans etc.)
- Students present their ideas
- Brainstorm other ideas for Eco-friendly shopping
- Create a list of tips for eco-friendly shopping

**Session 2 ( 45 minutes):**

**Introduction (10 minutes):**

- Remind the tips for Eco-friendly shopping
- Explain the objectives of the lesson

**Eco- friendly shopping activity ( 25 minutes):**

- Students work in groups; each group follows the tips and does the Eco-friendly shopping in the supermarket near the school
- Students bring their shopping into the classroom, present them and explain why can they name their shopping eco-friendly (e.g. recyclable packaging, no plastic bags, etc.)

**Reflection ( 10 minutes) :**

- Students reflect on their sustainable shopping activity
- Brainstorm the ideas for sharing tips for Eco-friendly shopping with the school community

**END PRODUCTS AND BENCHMARKS:**

- Poster and leaflets with tips for Eco-friendly shopping

**EUROPEAN KEY COMPETENCES:**

- Communication: Presenting findings and ideas effectively.
- Learning to Learn: Researching and acquiring new knowledge independently.
- Citizenship: Fostering a sense of environmental responsibility and global citizenship.
- Digital Competence: Using digital resources for research and creating posters.

**SUBJECTS INVOLVED:**

- Citizenship Education
- Environmental Science

**CONTENTS:**

- Sustainable shopping
- Packaging symbols

**ABILITIES/ SKILLS:**

- Research and presentation skills
- Critical thinking and problem- solving abilities
- Teamwork and collaboration

**COMPETENCIES:**

- Environmental awareness and responsibility
- Effective communication and presentation skills
- Critical thinking and problem-solving skills

**RISK MANAGEMENT:**

- Ensure students' safety while doing shopping

# Lesson Plan 8: 'Repair or throw away? – that is the question!'

**GENERAL** LEARNING GOALS:

- Students will give reasons for repairing some things instead of throwing them away
- Students will encourage their schoolmates and the whole school community to repair the broken items

**LAUNCH TIME :** January 2024

**APPROXIMATE NEEDED TIME:** two 45-minute session

**LEARNINNG SPACES:**

- Classroom
- Computer lab

**METHODOLOGIES:**

- Discussion: classroom discussion
- Group work: collaborative work in groups
- Research and presentation: independent research and group presentations

**TOOLS AND RESOURCES:**

- Whiteboard and markers
- Access to computer and the Internet for research

**SCAFFOLDING:**

**Session 1 ( 45 minutes):**

Intoduction ( 5 minutes):

- Explain the objectives of the lesson

Group discussion (25 minutes):

- Show examples of the things that people usually throw away although they might be repaired
- Divide students into two groups; those for repairing broken items and those who are against it.

- Students discuss the arguments for and against ; focus on the conclusion that products of good quality don't have to be replaced by the new items as often as those of poor quality.
- Discuss the topic of consious

buying Reflection ( 15 minutes):

- Students reflect on' the repairing policy' in their families
- Share ideas on the places and people who can help us to repair different items

**Session 2 (45 minutes):**

**Introduction ( 10 minutes):**

- Discuss the significance of reusing or repairing the items instead of throwing them away and buying the new ones
- Explain the objectives of the lesson

Research and group work ( 20 minutes):

- Divide students into groups
- Each group does the research and make the list of different service centres in the neighbourhood (e.g. bike service centre, home appliance service centre, computer service centre, etc. )
- Each group makes a map of the service centres
- Students brainstorm the slogans encouraging to repair things instead of buying new items

Group presentations ( 10 minutes):

- Each group presents their findings and slogans

**END PRODUCTS AND BENCHMARKS:**

- Poster: each group will create a poster encouraging to repair things with the map of local service centres

**EUROPEAN KEY COMPETENCES:**

- Communication: Presenting ideas effectively.
- Learning to Learn: Researching and acquiring new knowledge independently.
- Citizenship: Fostering a sense of environmental responsibility and global citizenship.
- Digital Competence: Using digital resources for research and creating posters.

**SUBJECTS INVOLVED:**

- Citizenship Education
- Environmental Science
- Computer Studies

**CONTENTS:**

- The importance of reusing and repairing things

**ABILITIES/ SKILLS:**

- Research and presentation skills
- Critical thinking and problem- solving abilities
- Teamwork and collaboration

**COMPETENCIES:**

- Environmental awareness and responsibility
- Effective communication and presentation skills
- Critical thinking and problem-solving skills

**RISK MANAGEMENT:**

- Plan for unexpected situations

# Lesson Plan 9: 'Trees around us – planting a school forest'.

**GENERAL LEARNING GOALS:**

- Students will understand the role of trees in the natural environment.
- Students will develop practical planting skills.

**LAUNCH TIME :** spring 2024

**APPROXIMATE NEEDED TIME:** two 45-minute sessions

**LEARNINNG SPACES:**

- Outdoor space
- Science lab

**METHODOLOGIES:**

- Hands-on learning: Practical planting activities
- Discussion: classroom discussion
- Collaborative work in small groups
- Reflection: Encouraging students to reflect on their experiences.

**TOOLS AND RESOURCES:**

- Worksheets
- Tablets
- Whiteboard and markers
- Seedlings
- Gardening tools

**SCAFFOLDING:**

**Session 1 ( 45 minutes):**

Introduction ( 10 minutes)

- Discuss the places where the trees usually grow

- Brainstorm the ideas of the benefits of trees to the environment and our lives
- Explain the objectives of the lesson

Groupwork ( 20 minutes)

- Devide students into 5 groups
- Assign each group a specific benefit of trees to the environment (preserving soil, positive effects on local climate and water cycle by providing oxygen, reducing temperature extremes, preventing soil erosion and landslides, improving air quality)
- Groups do the online research or conduct the experiments , they complete the worksheets
- Groups make the conclusions from their research/ experiments

Group Presentations ( 15 minutes)

Groups present their conlusions in front of the class

Sum up the presentations

**Session 2 ( 45 minutes):**

Introduction (10 minutes):

- Meeting with a forest ranger
- The forest ranger gives students the instructions how to plant a tree

Planting activity ( 25 minutes):

- Devide students into groups
- Each group of students plants a few trees

Reflection ( 10 minutes):

- Students reflects on their planting activity
- Discuss the impact and benefits of creating green spaces around the school

**END PRODUCTS AND BENCHMARKS:**

- Poster presenting benefits of trees to the environment
- Forest report: students will create a short report about their planting activity

- **EUROPEAN KEY COMPETENCES:**
- Communication: Presenting findings and ideas effectively.
- Learning to Learn: Researching and acquiring new knowledge independently.
- Citizenship: Fostering a sense of environmental responsibility and global citizenship.
- Digital Competence: Using digital resources for research and creating posters.

**SUBJECTS INVOLVED:**

- Biology
- Citizenship education

**CONTENTS:**

- Planting practices
- Environmental impact of green spaces

**ABILITIES/ SKILLS:**

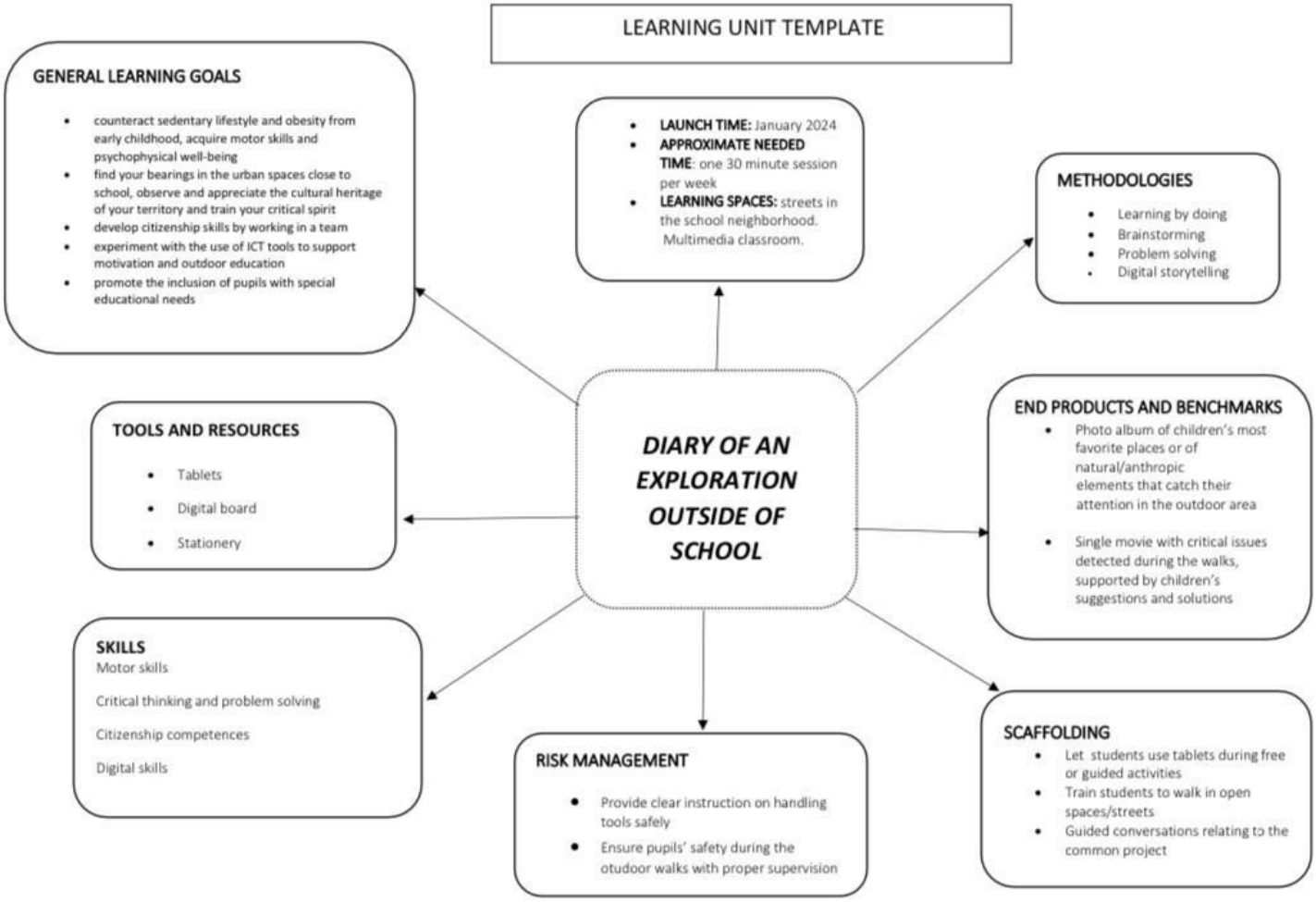
- Planting skills
- Research and presentation skills
- Critical thinking and problem- solving abilities
- Teamwork and collaboration

**COMPETENCIES:**

- Environmental awareness and responsibility
- Effective communication and presentation skills
- Critical thinking and problem-solving skills

**RISK MANAGEMENT:**

- Ensure students' safety during planting activities with proper supervision
- Educate students on safe handling of appliances and devices
- Check for any allergies or health concerns among students before outdoor activities


LEARNING UNIT TEMPLATE
GENERAL LEARNING GOALS
counteract sedentary lifestyle and obesity from early childhood, acquire motor skills and psychophysical well-being
find your bearings in the urban spaces close to school, observe and appreciate the cultural heritage of your territory and train your critical spirit
develop citizenship skills by working in a team
experiment with the use of ICT tools to support motivation and outdoor education
promote the inclusion of pupils with special educational needs
LAUNCH TIME: January 2024
APPROXIMATE NEEDED TIME: one 30 minute session per week
LEARNING SPACES: streets in the school neighborhood. Multimedia classroom.
METHODOLOGIES
Learning by doing
Brainstorming
Problem solving
Digital storytelling
TOOLS AND RESOURCES
Tablets
Digital board
Stationery
DIARY OF AN EXPLORATION OUTSIDE OF SCHOOL
END PRODUCTS AND BENCHMARKS
Photo album of children's most favorite places or of natural/anthropic elements that catch their attention in the outdoor area
Single movie with critical issues detected during the walks, supported by children's suggestions and solutions
SKILLS
Motor skills
Critical thinking and problem solving
Citizenship competences
Digital skills
RISK MANAGEMENT
Provide clear instruction on handling tools safely
Ensure pupils' safety during the otudoor walks with proper supervision
SCAFFOLDING
Let students use tablets during free or guided activities
Train students to walk in open spaces/streets
Guided conversations relating to the common project

# LESSON PLAN 10 : DIARY OF AN EXPLORATION OUTSIDE THE SCHOOL

**Reality task 1:** outdoor orientation

**Age of pupils:** 5 years old

**Needed time:** One month, once a week, 30-minute session per week.

**Learning spaces: streets** in the school neighborhood. Multimedia classroom.

**Tools and resources:**

Tablets Digital board

Stationery

**Subjects involved:** 5 years old pupils and all the teachers

**Final products:**

- Photo album of children's most favourite places or natural/anthropic elements that catch their attention in the outdoor area.
- Single movie with critical issues detected during the walks, supported by children's suggestions and solutions

**Summary of the activity:**

- First step:

Children explore the neighborhood and document with photos their most favourite places or natural/anthropic elements that catch their attention.

Children take pictures of critical issues detected during their walks.

Both photos and drawings are assembled in a photo album and in a video with pupil's comments.

Material for illustration: diary of an exploration critical issues and solutions.mp4

Material for illustration: diary of an exploration outsideof school most favourite places.mp4

# LESSON PLAN 11 : The journey of Bee Ap

**Reality task 1:** coding unplugged– handmade bees.

**Age of pupils:**

3-4-5 years

**Needed time:**

Two sessions a week from November to May

**Learning spaces:**

Classroom, coding space, school garden.

**Tools and resources:**

Stationery (cardboard, colors, scissors), directional arrows and Digital Board

**Subjects involved:**

Fields of experience

**Final products:**

Coding unplugged activities, handmade bee house, bees and flowers.

**Summary of the activity**

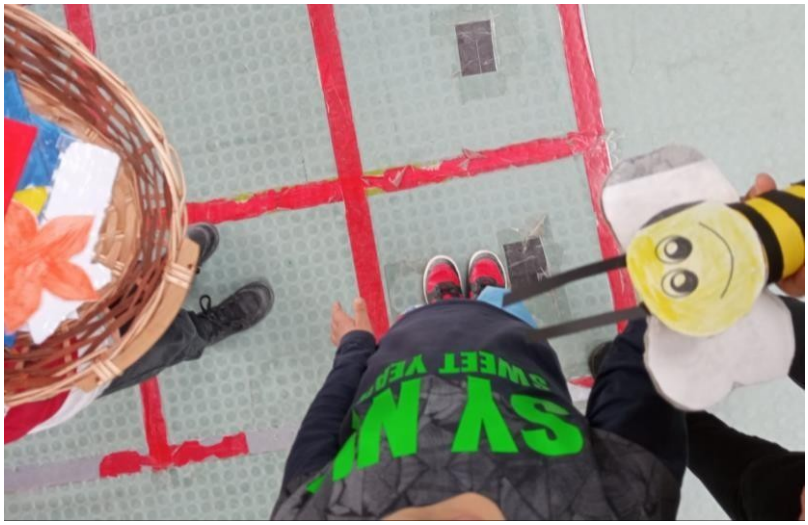
In this activity, students created the main characters of the story “Bee life” and the main character Bee Ap using recycled materials.

In the school garden, iPads were used to photograph bees. The images were projected on the digital whiteboard and then the importance of bees for the entire ecosystem was discussed.

They learned to orient themselves using the directional arrows to move right, left and forward.

The children were divided into small groups based on age and skills.

They were asked to solve a problem: REACH THE BEE HOUSE ON THE CODING GRID USING UNPLUGGED CODING PROGRAMMING.



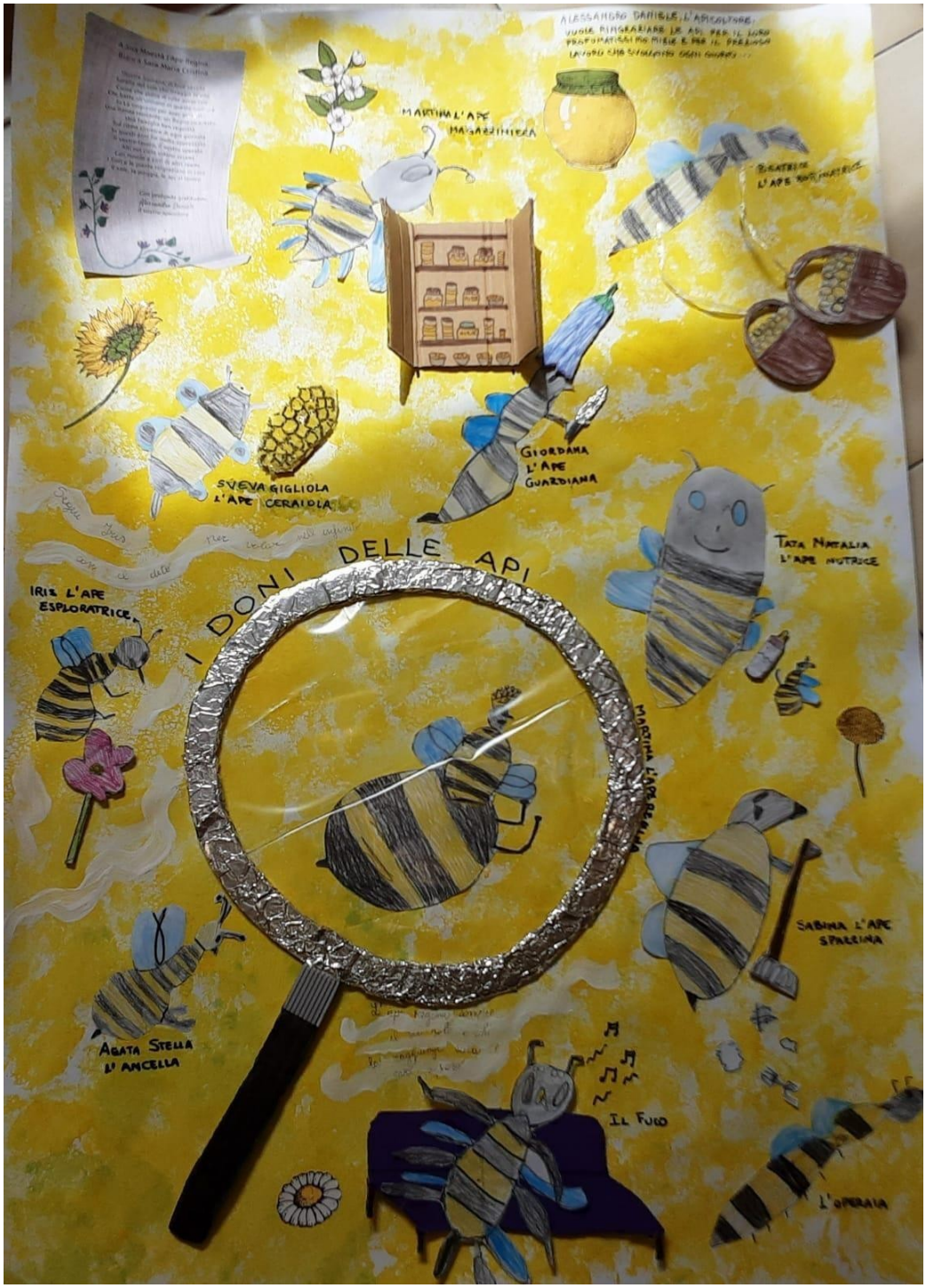
**Reality task 2:** The journey of Bee Ap

The following activities were preceded by reading books about bees and their habitat. Some activities were conducted by an external expert with the group of 5-year-old children while the other activities were carried out in small groups and individually with 3 – 5 age groups.


ACACIA

A journey in the garden with Bee Ap


Let's rebuild bee Ap's house




Let's zoom in on the work and tasks of bees

Let's protect bees and save the planet

Listen to the buzz

Let’s zoom in search of nectar and pollen

Flowers with their colors and scent call Ap and her bee friends

The beekeeper takes care of the bees

And he takes from the honeycombs the honey they produce

Trough multimedia learning environments with Ap the bee


Coding Lab

Let’s trace the path to the honeycomb for the robot Ap

# LESSON PLAN 12: Moving and learning in the green

**Reality task 1:** “Walking in the park”

**Age of pupils:** 6 years old

**Needed time:** two weeks.

**Learning spaces:** activities in classroom - park- school garden.

**Tools and resources:** animation games- motion games- flash cards- audio recording- learning environments- walk in the park.

**Subjects involved:** teachers and pupils of the first classes - the activities carried out in open classes 1^ A - 1^C.

**Final product(s):** party in the park on the “Tree festival day”: pic nic, open games.

**Summary of the activity:** In class, the children worked on learning colors, some actions, and delved into the importance of trees, particularly oaks, learning to identify their species by observing different types of leaves (holm oak, turkey oak, cork oak, oak). Knowledge of trees was conveyed not only through a logical rational approach but also through an emotional and empathetic approach. In the task of reality, the children demonstrated the ability to recognize the colors of nature, distinguish trees by observing and touching the leaves, play by performing actions within the park, and engage with the elements of nature through their bodies.

**Pictures and documentation**

Children hugging the tree and touching its leaves

Symon says game

Walking in the park

# LESSON PLAN 13: Outdoor orientation

## Age of pupils

8/9 years old

### Needed time

20 hours

### Learning spaces

Classroom, school garden, creative class, computer lab

### Tools and resources

Educational applications: PeakVisor, Google Maps, Digital Compass, Google Lens, Birdnet

Software: Google
Earth Digital Board.

- Cardboard, paper, colors, scissors for the plastic model
- Polystyrene, magnet, needle, plasticine for the realization of a compass
- Eye mask, directional arrows, cards with cardinal points for the orientation game

### Subjects involved

Italian, English, Mathematics, Art, Music, Physical education, Citizenship education, Science, Geography, Technology

### Final products

Model/drawing of the external school environment and the chosen elements of the surrounding landscape

- Craft compass
- Cards with the cardinal points

### Summary of the activity

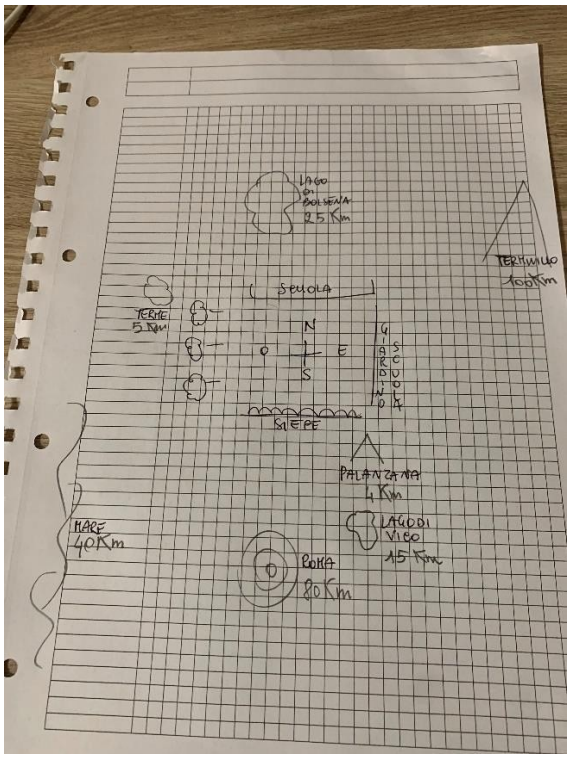
In this activity, students explore the outer space of the school garden using either a digital and an handmade compass to identify the cardinal points and the position of the sun. They recognize the cardinal points and name them in different languages.

Students analyze landscape elements (plants, birds) using BirdNet and Google Lens applications.

Moreover, they explore the surrounding territory by applications (PeakVisor) and software (Google Earth and Google Maps) that allow them to recognize natural and artificial elements, such as sea, lakes, mountains, not visible to the naked eye.

By these digital tools they calculate distances and dimensions and represent them in a plastic model/drawing.

Divided into couples they carry out blindfolded paths reaching elements of the school garden only following the indications in English given by their mates. This activity introduces pupils to the directional programming of Coding.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ROMA
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PALANZANA
ROMA

# LESSON PLAN 14: Pollination

### Age of pupils

8/9 years old

**Needed time**

40 days

**Learning spaces**

Classroom, school garden, creative lab

**Tools and resources**

Kit for breeding swallowtail
butterflies Paper, colors, scissors,
paper plates

Wood, sticks, reeds, corrugated cardboard, branches, leaves and hay Metal cans,
ribbons and fabrics

**Subjects involved**

Italian, English, Mathematics, Art, Science, Technology

**Final products**

Cardboard butterflies

Real swallowtail
butterflies Descriptive
texts on the butterfly Bug
house mini e maxi

**Summary of the activity**

In this activity, students study the value of pollinating insects and understand their importance for safeguarding the Planet. Following the instructions in a kit, they raise three swallowtail butterfly caterpillars, taking care of their feeding, cleaning and survival. Furthermore, the students plant two budleia plants in the school garden, known as the "Butterfly Plant" due to its ability to attract them. Students study the society of bees and their similarity to the society of humans. They create a poster representing each bee's task. They build a wooden house for the insects which they place in the school garden near the vegetable garden to protect biodiversity. They then create some small personal ones with metal cans. The students go to a nature reserve to closely observe the ducational hives and discover from the experts the behavior of pollinating insects in nature.


DIFFICOLTÀ ORTOGRAFICHE


OGNI APE CONTA


Smart Buds

# LESSON PLAN 15: Snakes and ladders boardgame

**Age of pupils**: 8-10 years old

**Approximated needed time**: Two hours for setting the board game + 45 minutes for the game

**Learning spaces**: classroom, school playground.

**Tools and resources**: stationary, dice, gym equipment.

**Subjects involved**: Art, English, Italian, Science, P.E. Citizenship.

**Final product**: Snakes and Ladders boardgame

**Summary of the activity:**

This activity follows the basic format of Snakes and Ladders boardgame. The board represents a journey to sustainable approach towards environment. The players are environmentalist working towards this goal. Students devise a snakes and ladders board (in Italian "Gioco dell'Oca") that looks at positive and negative actions that impact the environment pollution. Then they play the game and evaluate and discuss the chosen actions.

Pupils, divided in two teams, make a 18-square board game grid, each square contains a picture related to a question about pollution, habitat and biodiversity. Students that land on each square answer the question, if the answer is appropriate they can go on, otherwise they must stop for a turn.

The following questions are related to each square:

1. What are the pollutants in agriculture?
2. What are the 3Rs of recycling? (say the words in English!)
3. List three daily actions we can take to reduce water waste.
4. How do we differentiate waste?
5. What task does our recycling machine "Riciclina" perform?
6. What is the international symbol for recycling? Make it with your classmates!
7. What is an ecosystem?
8. Why is it important to respect and take care of plants and trees?
9. What are living beings? What is their life cycle?
10. Which of these means of transportation is eco-friendly?
    a) Motorboat B) Bicycle C) car.

Choose the name of the renewable energy produced by water:

a. wind energy
b. aerobic
c. hydroelectric

Name the gas produced by plants that makes possible life on Earth.

What are the causes of water pollution?

How many years does it take for a plastic bottle to decompose?

a. few days
b. several months
c. many years.

What are the consequences of water pollution?

If you go for a picnic and you cannot find bins, where can you put waste?

Arrival: You are an Environmentalist!

# LESSON PLAN 16: " Moving and learning in the green"

**General learning goals:**

- Introducing students to the concept of biodiversity and social environment;
- Aknowledge and appreciate the importance of acting responsibly towards trees

**Age of pupils**

10 years old

**Needed time**

10 hours

**Learning spaces**

Classroom, school park.

**Tools and resources**

Digital resources: digital board ( presentation in Power Point, videos…)
Paper and colors to make pictures of trees, pictionary.

Collaboration with an expert of Forestry science.

**Subjects involved**

English, Citizenship education, science, Italian, Art.

**Final product**

Outdoor game: guessing game

**Summary of the activity**

In this activity students know and become aware of the parts of trees, of different kinds of trees and rules of behavior in the open air.

They recognize the different parts of tree like leaves, different kinds of trees and name them in different languages.

This activity introduces students to the achievement of European key competences: multilingual competence, social and civic skills, learning to learn.

**Methodology:**

- Learning by doing
- Inquiry based learning
- Cooperative learning
- Discussion

# LESSON PLAN 17: " MUOVINSIEME: Outdoor and safety"

**Age of pupils**

10 years old

**Needed time**

10 hours

**Learning spaces**

Classroom, school garden, school neighborhood.

**Tools and resources**

- Digital resourcs:
  Google maps
- Road signs
- Paper and colors to make a map of the area surrounding the school

**Subjects involved**

English,Physical education, Citizenship education.

**Final products**

Realization of map of the way/area surrounding the school

**Summary of the activity**

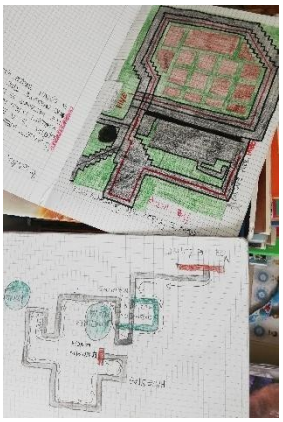
In this activity, students know and become aware of the directions, road signs and rules of behavior in the open air. They recognize the directions, road signs and cardinal points and name them in different languages. This activity introduces students to the achievement of European key competences: multilingual competence, social and civic skills, learning to learn.

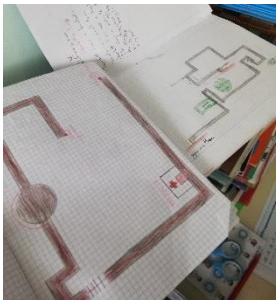
Photo:

*crossing road*

be very careful when crossing the road always walk in single row

Don't fall too far behind the group respect road signs, create a map of the route by putting your self-recovery skills into practice on paper





## LESSON PLAN 18: Food chain

**Reality task 1:** ***Food chain tag*** **Age of pupils:** 8 – 10 years old **Needed time:** 18 hours

**Learning spaces:** classrooms, gym, terrace, square

**Tools and resources:**

Paper, cardboard, felt tip pens, scissors, pencils, yarn, digital devices (digital board, camera, notebook)

**Subjects involved:** Science, Technology, Art, P.E., Music, Citizenship education, English

**Final products:**

Handmade artcrafts, such as placards to wear to play the assigned role. A special menu based on the 5 colours of well-being.

**Summary of the activity:**

Pupils play tag, pretending to be the main links of a simple food chain: the Sun, plants, rabbits, hawks, decomposers. By playing their role, they create an energy flow from the Sun to every living being and eventually they (as decomposers) release that energy into the soil, so that vegetables can begin to produce their own food, once again.

Some letters “E”, made of coloured paper, represent the Energy given by the sunlight. At the beginning of the game, children acting as plants take some “E”s from the Sun; then, when eaten by primary consumers, they give all their letters to rabbits. When hawks (secondary consumers)

catch and eat rabbits, they receive only part of the letters “E”s, because, passing from a link of the chain to the next one, energy slowly decreases.

**Pictures and documentation**

**Energy flows from one step to the next one**


Decomposers doing their job

# Systematic Observation Grid Template

| | Autonomy | Relationship | Partnership and cooperation | Responsibility | Flexibility, resiliency and creativity | Awareness |
|---|---|---|---|---|---|---|
| Name | Is able to find the needed tools and materials and use them effectively | Interacts with his/her peers, knows how to express and instill confidence | Knows how to cooperate, can ask for and offer help | Demonstrates responsibility regarding time and task management. | Reacts to unforeseen situations with divergent proposals and functional solutions | Is aware of his/her choices and his/her actions |
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# European Week of Waste Reduction (2023 November 18-26)

During the EWWR the following activities have been carried out:

A Class Survey about polluting materials

(Answer yes or no in case of negative answer write the alternative)

| Products | Did your parents use this product as children ? | Did your grandparents use this product as children? | Do you use this product? | Can its use be reduced? | Can it be Reused? | Can we do without it and replace it with another more ecological product? |
|---|---|---|---|---|---|---|
| Plastic bags | | | | | | |
| Bags and wrappers for chips and snacks | | | | | | |
| Diapers | | | | | | |
| Plastic cups | | | | | | |
| Tetrapack | | | | | | |
| Plastic bottles and containers | | | | | | |
| Soap and detergent containers | | | | | | |
| Plastic trays for fruit and vegetables | | | | | | |
| Toothbrushes | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Cotton swabs | | | | | | |
| Polystyrene | | | | | | |
| Plastic toys | | | | | | |
| Plastic plates and cutlery | | | | | | |

Following the European week, several activites were realised:

Plastic-free school snacks

What can we do to reduce plastic?  Drawing and writing activities