"Cooperation and education key to sustainable development".

Erasmus+

Nadleśnictwo Maskulińskie

Mediterranean Model Forest Network

Forêt Modèle de Provence

A few words about the project partners...

The Maskulińskie Forest District with its seat in Ruciane-Nida, as a unit of the State Forests, conducts multifunctional forest management, where each of the functions: social, economic and protective are equally important. Silviculture, forest protection, nature protection, timber harvesting, seed and nursery production as well as forest education are the main areas of activity of the Forest Inspectorate. Moreover, since 2002 the Forest Inspectorate has been a part of the Promotional Forest Complex "Masurian Forests" and is one of the leading centres of nature and forest education in our region. Important elements of our work are activities in forest vocational education, which the Forest Inspectorate conducts on the basis of contracts and agreements with secondary and higher vocational schools.

The Forestry School Complex in Ruciane-Nida was established on the basis of the Technical School of Wood Industry (1973). In 1980 a forestry faculty was launched. The school then took the name Zespół Szkół Drzewnych i Leśnych. In the following years the school underwent many organisational changes until 2004 when it was renamed Zespół Szkół Leśnych im. Unii Europejskiej, with forestry as the leading vocational training option. Since 2010, new fields of study have been created: landscape architecture technician, IT technician, tourist service technician, forest machine operator, gardener. The school has also created the possibility of acquiring education in qualified vocational courses: forestry technician, tourist service technician, and IT technician. The school has a supra-regional reach. It has specialised workshops for vocational subjects.

The Model Forest of Provence (Forêt Modèle de Provence) - a not-for-profit association was created in 2013, which still brings together local institutions, forestry associations, including the chestnut producers' association, forestry cooperatives, both owners and managers, such as the National Centre for Forest Ownership PACA region. The partnership activities developed by the Model Forests serve to promote the sustainable development of Provence's forest areas. The status involves the following activities: locally - projects are implemented in the areas of Moor, Sainte Baume, Star, Garlaban; regionally - the results of activities carried out locally are

disseminated and are a driving force for international activities, where the methods developed become a response to the challenges posed by the forest areas of the Provence region.

The Model Forest "Mirna Basin" (Modelna suma "Sliv rijeke Mirne") was established in 2013, and the founding members were non-governmental organisations, public institutions, cities, municipalities private companies, as well as companies dealing with forest and rural areas. The activities of Modelna suma "Sliv rijeke Mirne" include the implementation of projects in the field of forestry, among others. The common denominator of the activities are sustainability aspects. Since 2014, the Association has been involved in the Forest Communication Network and the EU Group on Forest Pedagogy. The Association is involved in education for sustainable development and specialises in forest pedagogy. The target groups of Modelna suma "Sliv rijeke Mirne" are kindergartens, schools, teachers and professionals from institutions dealing with forestry and natural resources.

Pictured are the project partners during a meeting at the 'Coloured Forest' nursery school in Nova Vas, Croatia.

And it started with the forests...

The idea of sustainability emerged at the beginning of the 18th century. A high-ranking German official at the time, Hans carl von Carlowitz, recognised the crisis of depleting forest resources.

The modern understanding of the concept of sustainability was first presented in a work by the Saxon official and thinker H.C. von Carlowitz entitled *Sylvicultura economica,* published in 1713. In this study, he promoted the need, indeed the necessity, of a sustainable stand in German forestry. The surroundings of the then mining towns in Saxony, at the time a well-known silver mining basin, were intensively deforested as a result of the use of wood for mining and metallurgical purposes**.** The surrounding forests went under the axe, which quickly resulted in the loss of local tree stands. As a result, raw material began to be imported from other areas of Germany, where the same problem arose in retrospect.

Calrowitz recognised the need for responsible forest management and consequently described standards related to the sustainability of timber harvesting. These became the foundation of sustainable forestry, which involves cutting as many trees as can later grow in a given place.

The concept of sustainability formerly used in the context of forest management described a management model for securing and ensuring the even income and long-term maintenance of forests. Sustainable, sustainable development was thus not a passive, limiting activity, but an activity aimed at the concrete implementation of optimal, long-term forest management, the essence of which was to keep an adequate number of forest stands in good condition.

Collective action is what counts...

Over the years, the idea of sustainability has evolved.

1987 - UN Report "Our Common Future".

In this document, the definition of sustainable development appeared for the first time as follows: "...is development that ensures that the needs of present generations are met without compromising the opportunities for future generations to meet their needs."

1992 - Earth Summit in Rio de Janeiro

The aim of the Summit was to draw international attention to the fact that economic development is causing irreversible environmental degradation. It was noted that unless concerted action is taken, humanity will lead to the total destruction of our planet. The so-called Agenda 21, a global action programme outlining how to develop and implement sustainable development programmes at the local level, was adopted.

2000 - UN Millennium Declaration

One of the UN's most important documents guiding what countries should do to make the world a better place in the 21st century. The Declaration contains 8 Millennium Development Goals. One of them talks about ensuring a state of ecological balance by, among other things, combating deforestation.

2002 - UN World Summit in Johannesburg

In response to global changes over the decade, actions have been proposed to improve living conditions and protect natural resources. Key areas have been identified where countries' actions need to be particularly effective (such as the protection of biodiversity).

2015 - UN Summit in New York

The 2030 Agenda for Sustainable Development was adopted, with 17 Sustainable Development Goals and 169 specific targets on issues such as eradicating poverty, fighting inequality and tackling climate change. The Agenda was agreed by all 193 UN member states and is to be implemented over the next 15 years.

What is sustainability?

> Sustainability is development that meets people's current needs without restricting future generations from meeting their needs.

At the centre of sustainable development are :

- People - we are determined to eliminate poverty and hunger

- Planet - we want to protect the Earth from a deteriorating environment

- Prosperity - we want to ensure that all people have a decent and a fulfilling life

- Peace - we build peaceful as well as inclusive societies, free from fear and violence

- Partnership – we mobilise the resources needed to implement Agenda 2030

Agenda 2030

The 2030 Agenda for Sustainable Development was adopted by 193 UN member states at a summit held from 25-27 September 2015 in New York.

It is a document that sets out 17 Sustainable Development Goals and 169 targets.

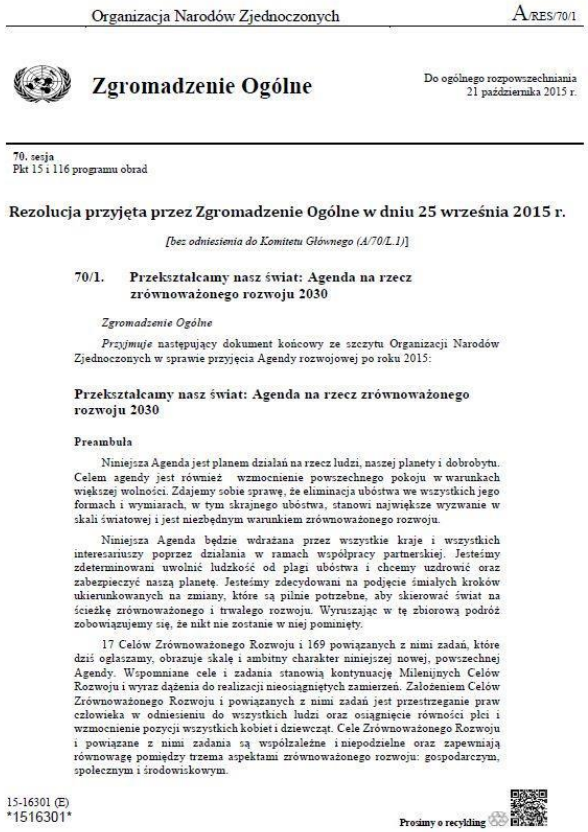
The agenda is:

A plan to repair the world

A plan to tranfsorm the world

A plan to make a better place with the current and future generations in mind.

Education and collaboration is key to building a better future for all people.



Organizacja Narodów Zjednoczonych A/RES/70/1

Zgromadzenie Ogólne

Do ogólnego rozpowszechniania
21 października 2015 r.

70. sesja
Pkt 15 i 116 programu obrad

Rezolucja przyjęta przez Zgromadzenie Ogólne w dniu 25 września 2015 r.

[bez odniesienia do Komitetu Głównego (A/70/L.1)]

70/1. Przekształcamy nasz świat: Agenda na rzecz zrównoważonego rozwoju 2030

Zgromadzenie Ogólne

Przyjmuje następujący dokument końcowy ze szczytu Organizacji Narodów Zjednoczonych w sprawie przyjęcia Agendy rozwojowej po roku 2015:

Przekształcamy nasz świat: Agenda na rzecz zrównoważonego rozwoju 2030

Preambuła

Niniejsza Agenda jest planem działań na rzecz ludzi, naszej planety i dobrobytu. Celem agendy jest również wzmocnienie powszechnego pokoju w warunkach większej wolności. Zdajemy sobie sprawę, że eliminacja ubóstwa we wszystkich jego formach i wymiarach, w tym skrajnego ubóstwa, stanowi największe wyzwanie w skali światowej i jest niezbędnym warunkiem zrównoważonego rozwoju.

Niniejsza Agenda będzie wdrażana przez wszystkie kraje i wszystkich interesariuszy poprzez działania w ramach współpracy partnerskiej. Jesteśmy zdeterminowani uwolnić ludzkość od plagi ubóstwa i chcemy uzdrowić oraz zabezpieczyć naszą planetę. Jesteśmy zdecydowani na podjęcie śmiałych kroków ukierunkowanych na zmiany, które są pilnie potrzebne, aby skierować świat na ścieżkę zrównoważonego i trwałego rozwoju. Wyruszając w tę zbiorową podróż zobowiązujemy się, że nikt nie zostanie w niej pominięty.

17 Celów Zrównoważonego Rozwoju i 169 powiązanych z nimi zadań, które dziś ogłaszamy, obrazuje skalę i ambitny charakter niniejszej nowej, powszechnej Agendy. Wspomniane cele i zadania stanowią kontynuację Milenijnych Celów Rozwoju i wyraz dążenia do realizacji nieosiągniętych zamierzeń. Założeniem Celów Zrównoważonego Rozwoju i powiązanych z nimi zadań jest przestrzeganie praw człowieka w odniesieniu do wszystkich ludzi oraz osiągnięcie równości płci i wzmocnienie pozycji wszystkich kobiet i dziewcząt. Cele Zrównoważonego Rozwoju i powiązane z nimi zadania są współzależne i niepodzielne oraz zapewniają równowagę pomiędzy trzema aspektami zrównoważonego rozwoju: gospodarczym, społecznym i środowiskowym.

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Prosimy o recykling

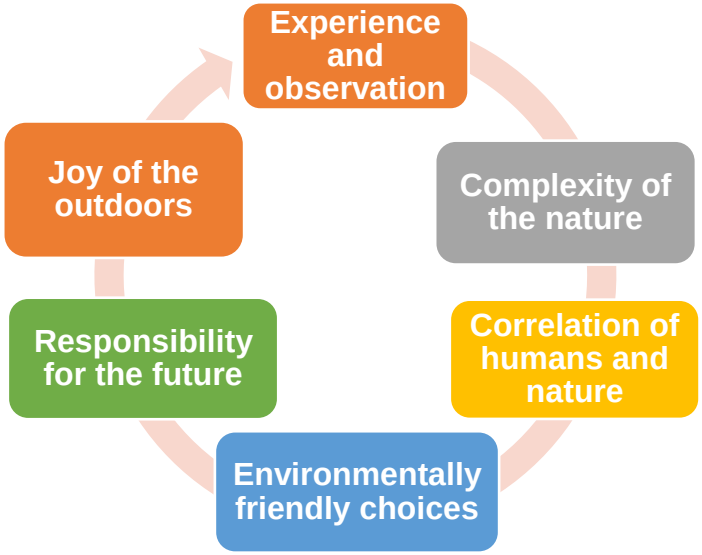

SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

Providing environmental education for sustainable development

The need to develop a basis for education and public awareness in the spirit of sustainable development is currently regarded as one of the most important and urgent tasks facing educators.

Among the directives in the field of educational activities, the education of society, including children and young people, deserves a prominent place. This pillar constitutes an important social capital. It is therefore necessary to construct educational systems and programmes in such a way that - by adapting them to the needs and developmental abilities of children - they are educated and formed into conscious and responsible citizens guided by the principles of sustainable development on the basis of the awareness of future generations.

Teaching stages dedicated to achieving environmental awareness



1) Joy of the outdoors

It involves developing sensitivity, positive impressions and an open, positive attitude towards the environment. This stage contributes most strongly to the start of a change of attitude towards outdoor activities, arousing interest in nature and the processes taking place in it.

2) Experience and observation

It allows you to get to know the fauna and flora (plant species, animals) to a considerable extent, the activities conducted in the field intensify your personal attitude to the issues discussed. The knowledge gained will provide a basis for reflection and the adoption of desirable attitudes.

3) Complexity of the nature

The interaction of plants, learning about and understanding the relationships between different species within different ecosystems, leads to a broader understanding of processes in nature.

4) Correlation of humans and nature

The interdependence between forest and people is of central importance for understanding potential conflicts. The concept of balance between social, cultural, ecological and economic functions.

5) Environmentally friendly choices

With knowledge, you can develop your own point of view, which helps you make informed decisions and alternative actions.

6) Responsibility for the future

Understanding what sustainability is and what influence we have in this area. People individually and as a group are responsible for their actions. Based on knowledge they can make reasoned decisions leading to sustainable lifestyles. Responsibility for the future, attitudes that influence consumers and decision-makers to make better choices.

The various stages can be repeated several times, slowly gaining more experience each time and broadening knowledge and horizons.

Gaining partner experience....

First training meeting.

We were guests at Partners from France in the Provence region exchanging knowledge and experience on:

- methods of promoting hunting management and educating the public from different age groups;
- forest education activities carried out in the form of workshops in reserve areas;
- methods for eco-tourism based on forest resources and the theme of timber promotion, including through the presentation of artworks inspired by nature;
- knowledge of forest management in the context of the possibility of harvesting cork oak bark;
- observation of management methods in a private forest with a priority on increasing biodiversity based on public funding.

Project partners during a training visit to France

Second training meeting.

The meeting took place in Poland, at the Maskulińskie Forest District and the Forest School Complex in Ruciane-Nida. Our partners:

- they were introduced to the history, resources and multi-functional management of Poland's State Forests;
- they increased their knowledge of biodiversity - lynx reintroduction, protection zones for birds including osprey, protection of the pond turtle;
- they learnt about the key functions a forest performs including:
    - protection - of water, soil, landscape;
    - economic - sustainable use of timber and preservation of stand continuity, incidental forest use, hunting management;
    - social - they learnt about the functioning of the Promotional Forest Complex "Mazurian Forests", the Forest Education Centre "Wojciechówka". Project partners also had the opportunity to learn about the functioning of tourist facilities in the State Forests on the example of the Maskulińskie Forest District. They also presented projects implemented to raise public awareness of sustainable development (a project to promote wood as an excellent raw material), and provided knowledge on nature and forestry education for children, young people and adults;
- participants in the project were also introduced to examples of cooperation between institutions in our region to raise public awareness of environmental issues;
- visited the Forestry School Complex, where we showed how the school perceives and implements the 'Sustainable Development Goals' and what theoretical and practical forestry education looks like.

Project participants during a training visit to Poland.

Presentation of educational achievements by teachers at the Forest School Complex in Ruciane-Nida.

Symbol for the Erasmus+ project 'Cooperation and education as key to sustainable development.

During the meeting in Poland, a symbol of the idea of sustainable development and care for the environment was created in a tangible form: we planted a 'Forest Orchard' near the Maskulińskie Forest District headquarters. All members of the project, together with a representatives of the local authorities and students of the Forestry School Complex, planted species of trees and bushes of plants naturally growing in Polish forests: rowan, blackthorn plum, sea buckthorn, juniper, dogwood, elderberry, raspberry, blackberry, blackcurrant, hawthorn, blueberry, bird cherry and traditional varieties of apple and pear trees. Fruit from the above species will eventually be available to the local community. In addition, as part of education to support the principles of sustainable development and to spread the idea of multifunctional forest management, the site will be visited by pupils from local schools as part of their classes and school practice.

Project partners at the joint planting of the 'Forest Orchard' at the Maskulińskie Forest District headquarters.

Beekeeping workshop at the Forestry School Complex in Ruciane-Nida.

Learning about the possibilities and problems of tourism development in the Great Masurian Lakes by the project partners.

Culinary workshops as an idea of sustainability, showing how to make good use of what the surrounding nature gives us, while emphasising the health aspect.

The Kadzidlowo Wildlife Park as an example of cooperation for animal and landscape conservation.

Third training meeting.

In the town of Groznjan, Croatia, the penultimate training visit hosted by Model Forests in Istria began. Partners gave each a presentation on their achievements.

- "Environmental and forestry education" - Model Forest Istria (Croatia);

- "Activities in forest education" - Maskulińskie Forest District (Poland);

- "Environmental and forestry education practitioner" - Model Forest Provance (France);

- "Innovative forest education practices" - Forestry School Complex in Ruciane-Nida (Poland).

During the visit to Croatia, the partners gained knowledge and experience of:

- forest management and restoration practices in autochthonous lowland Mediterranean forests using the example of the Motovun forest in the Mirna river basin;
- truffle breeding, harvesting and processing (Zigante truffle factory) as an example of the use of natural potential in the economic development of the regional economy;
- running a Forest Kindergarten, which is unique in both Poland and Croatia and an alternative way of organising a stay and education in nature. The idea of this establishment is to combine art, interpersonal relations, relaxation, learning about the world with respect for the environment;
- agri-tourism self-sufficiency using local natural resources, using the example of the Kocjancic family farm, known for producing natural products based on local resources;
- conducting workshops using the example of the Association for the Promotion of Outdoor Education 'Dijade' in Tar. This organisation runs creative, scientific and scouting workshops in the field.

Training in white truffle harvesting under the guidance of a professional who demonstrated the secrets of harvesting with the help of two trained dogs.

A visit to the organic agro-tourism property of the Kocijancic family.

Fourth meeting - final.

The final training visit summarising the project took place in the Maskulińskie Forest District in Poland. During the conference, our partners from Croatia, France and the Forestry School Complex in Ruciane-Nida shared their observations and conclusions from the meetings held and discussed the implementation of various forms of education and cooperation for sustainable development in their own communities.

Lesson scenarios supporting the Principles of Sustainability developed by the Project Partners.

- **Workshops on nature and forestry education for the youngest children**

Location: forest

Duration: 45 minutes

A treasure trove of letters

Insects are the most numerous animals in the world and make up about 75% of the animal kingdom. This is what the next task will be about. We choose any three species of insect that live in the surrounding forests.

Now, we divide into three teams and name them. The name of the team is the name of the genus of the chosen insect e.g.: Runner, Goatsucker, Armyworm.

Before starting, the leader hides the cards with the letters that make up the name of the insect. The letters of each insect's name are written in one colour so as not to mix them up. The letters can also be written on wooden slices.

Each group takes a basket containing a piece of paper with the name of an insect and begins their search. The children follow the traces on the trees or on the ground next to the trunk to track down the treasure - the letters that will form the name of the insect that lives in that forest.

When the groups have found the letters and put their words together - they can nail them to the wooden board. The result is a wooden board with the name of the insect in different colours. The board can be painted and thus becomes an interesting decoration.

Acorn yoga

We stand side by side so as to form a beautiful circle like our planet. We spread our arms like the biggest oak tree in our forest and stretch the branches in all directions. Now we jump up high, to the sky, and then, falling down, we hit the ground hard with our feet like falling acorns. The activity can be repeated many times. It is a good energising and invigorating exercise.

Play - Let's build a forest - or the layering of a forest

Before starting the game, prepare cards with the names of trees, undergrowth plants and animals

oak	pine	birch	spruce	beech	woodpecker	eagle
corylus	elderberry	rowan	tit	wild boar	roe deer	hornbeam
fern	lizard	wild strawberry	boletus	fox	badger	moss
needle-cover	worm	ant	cone	mole	hedgehog	dry leaves

Students draw cards from a basket and use double-sided tape to stick them to their clothes. Their task is to create four layers of the forest according to the rule:

- litter: children sit on the floor,
- groundcover: children squat,
- undergrowth: children stand on the floor,
- treetops: children stand on chairs or a low bench.

The world around us

Location: forest, park.
Working in groups.
The teacher in charge draws the boards according to the pattern below, then divides the students into groups, and distributes a board for each group.
Children have to be creative and find all the products in the space around them.

Something red	Something elongated	Something green	Something soft
Something round	Something yellow	Something hard	Something brown

FORES QUEST - a form of active knowledge acquisition

Wandering through the forest paths, find a yellow plant and name it

Find leaves of the following trees: oak, beech, rake and take them with you

Find a pinecone in the woods. What tree does it belong to?

While walking in the woods, look for traces left by forest animals. What kind of animal would leave this mark?

Look at the forest litter. Note down as many familiar specimens as you can find on the ground

Track something interesting in the woods and tell a story related to it

GOOD LUCK!

Forest ecosystem workshop

Location**:** Forest

Time**:** 90 minutes

Getting to know each other through play

Holding a ball of wool in his hand, the leader of the game introduces himself, says a few words about himself, then throws the ball to another participant of the game while holding the beginning of the thread in his hand. After the self-presentation, each participant holding their thread continues to throw the ball. When all participants have been introduced, they will form a spider web. This web represents biodiversity in nature, where everything is strongly connected to each other.

Forest memory

Participants are divided into 3 groups. The trainer places different natural materials on a table. Participants have to memorise them and, on cue, go in search of such materials in nature. The task lasts one minute. The teams then bring the materials back for inspection. Will all teams manage to find all the given objects in time?

Searching for sides of the world

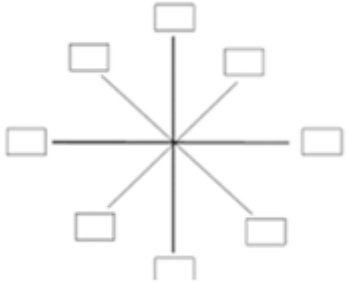
Children and activity leader form a circle. They talk about the main and intermediate sides of the world. The children then name the indicated world directions. The children are divided into 4 groups.

Each group is given a compass and the task of finding a card indicating a particular side of the world. The cards with the letters N, S, E, W (North, South, East and West) are found near a specific place in nature by which the side of the World can be determined, for example: moss, top of a tree, resin. When the participants find their card, first everyone returns to the circle, shows the found card and then everyone goes together to the place where the card was found and observes signs in nature that can be used to determine the sides of the World (e.g. moss - north, denser wood growth rings- south, tree crown density - east, dried resin - west).

Main and indirect sides of the world

Materials needed: 4 sticks (2 main and 2 intermediate directions) and any natural materials.

The children are divided into 4 groups and each group has its own compass. We put the compass on the floor and next to it the children create the most beautiful representation of the sides of the world using natural materials.



Note: They use the compass as an example of the wind rose and to determine where the main and intermediate sides of the world are located in order to get the most accurate representation.

Nest construction

Participants reach a location by walking on a map drawn by the activity leader. They stand in a circle. The instructor gives them bags with various natural materials (grass, twigs, earth, feathers, seeds) which the birds use to build their nests. Participants do not know what is in the bag and have to guess by touching the materials with their eyes closed.

They then discuss what was in the bags and what the materials have in common, what is the relationship between them?

After solving the puzzles, each participant gets a picture of a bird. They then go to a nearby forest to look for counterparts of the bird photo cards they received. The children pair up. Their task will be to build a bird's nest, using underwear clips as the bird's beak. They collect twigs and other materials and make their nest.

How do you measure the height of a tree?

We measure the height of the tree using the stick technique. Using a stick and a measuring tape, participants will try to measure the height of the tree and compare their results.

Children look for a stick the length of their arm. Straighten your arm and position the stick vertically upwards (90° to your outstretched arm). Walk forward/backward until the tip of the stick meets the top of the tree.

Your feet are now the same distance from the tree as the tree is tall. Measure the distance with a tape and you get the height of the tree. (The relationship is only true if the tree is much taller than you and the surface is relatively flat).

The forest from a different perspective

Can you experience the forest in a different way than usual?

In this game, participants walk in pairs and observe the forest in a mirror. They lift the mirror up towards the tops of the trees, one person from the pair holds the mirror and leads by the hand the other person, who observes the forest from a new perspective. They then swap.

Creative activity

Making necklaces from natural materials.

To make it, you will need a thin string, a small wooden round plate with a hole in it (this will serve as a pendant), paints, glue, brushes, dried flowers, seeds and other natural materials that can decorate the necklace. Thread a string through the hole in the plate, which we then tie at the desired length of the necklace. We glue the natural materials to the plate and then decorate it with colours. Leave to dry.

- ## Workshop for primary school children

Wood products in everyday life

You can start the meeting by explaining the difference between wood and wood and where wood comes from. Cite the fact that modern wood is estimated to be around 30 000, then give some examples from everyday life, then talk about wood as a renewable resource.
Equipment: digital camera, telephone.
Location: home, classroom, etc.
Task: With your camera, you need to document how many products made of wood usually surround you each day. This means that when you wake up you need to have your camera nearby to take photos of all the wooden products you see and/or use until the evening when you go to bed.
Prepare a story consisting of photographs and present it to the rest of the class.

Questions:

1. How many photos did you take?
2. Did you take fewer or more photos than expected?

3 Do we need wood? Or can wood be easily replaced by other materials?

4. What are the advantages of using wood over other materials?
5. What are the disadvantages of using wood compared to other materials?

What was the object made of?

Introduction: When we consider how much CO_2 we emit, we need to think about what we buy. One of the questions we need to ask ourselves is 'What is the object made of'. Different types of materials are associated with different production methods, uses and different durability. Furthermore, the fate of these products varies once they are discarded. Therefore, we should be aware of what material an object is made of. Do you know what the items in your home are made of?

Duration: 1 h

Equipment: digital camera, telephone.

Place: home

Task: Go to the kitchen. Find the items listed below and answer the questions. Take a picture of an object that you would make from a material other than wood. Justify all your answers.

Product	What material was it made of?	If it is not made of wood, could it be made of wood?	If it is made of wood, do you want to go for the wooden version next time too?
Kitchen worktop			
Floor			
Table			
Cabinets			
Curtains/blinds			
Plates			

Questions:
1. what other questions should we ask ourselves when shopping?
2 Give reasons for choosing wood as a material.
3. what would argue for choosing a material other than wood?

From tree to wood - a remarkable transformation

1. Welcoming the children and referring to the topic of the lesson. Teacher/forester explains the terms tree and wood together with the children.
2. Main forest species. Pupils name the main forest tree species. The leader distributes twigs of the main coniferous and deciduous tree species to identify the species of tree they come from.
3. Participants draw one object made of wood from a basket and discuss the use
   Joint discussion:
   - what are the objects made of (each child will tell about their object),
   - what other uses of wood do they know? (reference to different properties of wood, e.g. energy, construction, main uses of wood of different tree species, e.g. softwood is used for sculptures, hardwood for energy).
   - where does wood come from? (Refer to point no. 2)

2. pupils, on the basis of J. Tuwim's poem "Table", compose a short story "How is furniture made"?

"Table"

There grew in the forest a mighty tree, hard, slender and heavenly.

Once the tree got cut down, the lumberjacks came and worked until dawn.

Then the horses dragged it to the sawmill, which cost them a lot of will.

The saws cut the wood up, whirring, whining, and lost their edge

Whoever bought the laths and boards is a carpenter, that's no lie.

This carpenter took a saw, a hammer: here is an outstanding foreman

He measured, polished, glued, shaped. A great way to make the table.

Even a blind man would have admired such a piece of furniture

Exercise - TREES

The theme of the meeting is wood and, more specifically, stories about what is made of wood in our daily lives.

In order for children to have a good understanding of sustainability, it is important to ensure that they know what a properly preserved natural environment is.

When talking about the forest, it is important to emphasise the importance of biodiversity. And when talking about natural diversity, reference should be made to the different species of trees. With this foundation of information about the forest ecosystem, the message to children at this point should be: sustainability is using what the environment offers us in a way that does not cause harm to the environment.

Practical part for individual issues:

- **OAK**

Supporting materials:

-25 oak twigs

-25 acorns

-30 oak leaves (optional leaf shape cut from paper)

-20 cardboard pads - in this role a toilet paper roll

-Plasticine

The teacher reads the poem (Appendix 1) and asks the children to imagine the hero of the poem while listening to the poem. Each child is then given one stick, one leaf, an acorn, plasticine and a cardboard pad. The completed work shows the practical use of wood to create a toy.

Sequence of activities:

1. Crumple up the cardboard roll by pressing it down on the table with your hand. This will give us as flat a surface as possible to imitate the bed of our forest folk.

2 Take plasticine and cover the edges of the 'bed' with plasticine. Then place and press the broken pieces of oak branches onto the plasticine. In this way, an "oak bed" is created.

3 Next, glue a small piece of flattened plasticine about 3cm long in the middle of the "bed". We put an acorn on top of the plasticine prepared in this way. This is the head of the man. Next, we break two small branches from the oak branch and stick them a little below the "head" of the man. This is how the arms are formed.

4. Take a leaf and cover it like a quilt over the person so that the "hands" stick out above the leaf.

5. Name your acorn

Annex 1

In an oak house, among stately trees, an Oakay has moved in

The door to his cottage hidden among the trunk

Are hidden by the leaves painted in autumn colours

Yellow, red, motley, the little leaves are a joy to the Oakay's eye.

In the little house the floor is green, made of wavy leaves,

beautifully decorated, as befits an oak.

Oakay used to be a sleepyhead, he liked to laze around

and he used to hide his feet in a bed made of little leaves.

And only sometimes his sleep was disturbed by thumping and noises...

It was acorns falling from the oak.

- **FOREST AND SPRUCE**

Supporting materials:

-2 sheets of A4 paper

-Crayons: brown, red, green, blue

Introduction: A short story about the trees in the forest, including special attention to the spruce. Explanation of the difference between a forest and a woodland.

The teacher reads the poem (Appendix 2) and the children, while listening to the poem, imagine the hero of the poem. Each child is then given the necessary materials. A work will be made showing the practical use of wood and plants by man. We explain to the children how the fruits of the forest are used by man. We emphasise the safety rules for using plants. Attention should be paid to wooden elements in the house. In this way, the properties of spruce wood can be referred to. By working in this way, the children will gain knowledge of how wood and plants from the forest are used in everyday life in a way that is as practical as possible for them.

Sequence of activities:

1 The children decorate the first card so that they can imagine that the human lives in a forest, under a spruce tree. We draw a spruce branch at the top of the card. We communicate that the needles are short, one length and prickly, and what spruce twigs look like. We leave space at the bottom for a basket.

2 The children then take a second piece of paper and divide it into 4 equal parts. Colour each section a different colour: brown, green, blue, red.

3 Next, at the bottom of the card, in the place where the fruit basket is to be, we 'make' the strawberries. Rub the red card in one place so that the colour of the crayon appears on the blank card. This is how the strawberries are created. Then use a blue card to make blueberries. The children's attention should be drawn to the size of the fruit.

Later, the children can cut out leaves from the green card and a basket from the brown card.

We then ask each child to write on their work sheet the name they have given to the little man - the protagonist of the poem read earlier.

Annex 2

In a spruce forest at the edge of the woods

A little man wandered without wasting time

He picked strawberries in a small bowl for a small meal

When he reached the cottage, he opened the door without making a sound.

He rushed to the kitchen, for he was going to prepare something...

He took the water from the morning dew in the leaves

To wash the strawberries before putting them in the bowl

He was about to eat them, he was almost there.

When he had an idea: Why not spice them up!

In a flash, the bowl is ready:

A wooden spatula awaits the task

Our little man was looking for seasoning this morning.

For nothing, as strawberries taste best on their own.

He sat back in his chair and put the spatula away,

He finished this delicious breakfast – all strawberries gone.

GAME - How to care for the forest?

Time: 45 minutes

Materials needed: photos of a damaged forest, and healthy trees on the back - one for each group.

The task is to match examples of ways to look after the forest with pictures of the forest as we would like to see it.

Ask participants to recall their last walk in the forest. Ask them how they felt then, what they remember best. Guide the conversation to emphasise the fact that forests have different functions.

Divide class participants into groups of several people. Give each group one photo of a damaged forest. Instruct each group to talk about the picture they have received. What does it show? Do they like the photo? What would they like to change about it? Has anyone in the group ever seen a forest or trees in a similar state?

What a forest looks like and whether it is healthy depends on natural factors, but also on people: those who work in it and those who visit it - each and every one of us. What are the ways of caring for the forest?

On the other side of the picture of the damaged forest is a picture of a beautiful and healthy forest. Instruct class participants to give examples of how to look after the forest from their photo so that it looks like the one in the second photo, rather than the one in the first photo?

When all the groups are ready, read out the answers. Do any of the groups have ideas that have not yet emerged? Write these ideas on a piece of paper and add them to the corresponding pictures.

As a conclusion to the task, ask willing participants to complete the sentence: **To take care of the forest I can...**

GAME - A Forest full of trees

Time: 45 minutes

Materials needed: Work sheets for each participant.

The game 'Forest Full of Trees' focuses on the planning mechanism for sustainable forest management. Forests have been cut down since the dawn of human civilisation. Since time immemorial, people have also sought a balance between the rational use of forest resources and their conservation. The game 'Forest Full of Trees' simulates the challenges of finding this balance. The vastness of forest areas and their natural regeneration, however, mean that concern for sustainable forest land management is not the same everywhere in the world.

Each participant receives one copy of the 'Forest full of trees' worksheets and reads the instructions. After each completed game, the results are discussed.

Guiding questions:
Have your forests grown, stayed the same or disappeared? Why are the trees in the forests being cut down?

After the last repetition of the game, discuss the whole exercise and its conclusions with the young people. What do foresters do to ensure the long life of the forests they manage?

Everything we use in our daily lives is produced using renewable and non-renewable natural resources - wood is just one element. Is it possible to apply a solution similar to that of the State Forests to our everyday choices? What would need to be done to ensure that we do not deplete a valuable resource?

APPENDIX: Work Sheet - A forest full of trees

WORK SHEET - A FOREST FULL OF TREES

Play the role of a forester and see how your logging decisions will affect the state of the forest in 100 years' time. Draw 16 trees at the bottom of the page. They will be a renewable resource. You will harvest the wood 4 times in the next 100 years, i.e. cut down some of them. The wood will be used to build houses, furniture and to make paper. After each round, the trees will grow back naturally.

Keep in mind that you must cut at least 4 trees each round to maintain the supply to the local sawmill; at the end of each round, the trees will regrow half of what is left in the forest after cutting.

TASK:

1. Draw a line separating the trees you want to cut down. Count how many trees are left.
   2 Draw new trees - half of the number of trees left after felling. Example. There are 16 trees.
2. You then cut down 10 of them, so there are 6 left in the forest. You add 3 trees, so at the start of the next round you have 9 trees.
3. Repeat points 1-3 4 times. After each round, record the results in a table.

Round	Number of trees at the beginning	Felled trees	How many trees are left?	How many trees have grown back?	Number of trees at the end
I	16				
II					
III					
IV					

- **Activities for secondary school students and adults**

Be Eco every day

Age: no restrictions.
Venue: classroom, hall.
Duration: 30 minutes
Materials needed: Sheets of paper, markers, etc.
Form of work: group work.

The question to start with is do we have an impact on what happens in the world? Do we have an impact on what happens in my country ?
By our actions, can we contribute to improving the quality of our lives, our surroundings and also the quality of life of the global community? How can we change our own and our loved ones' environmental awareness with our daily habits.

Divide groups of students into slogans such as:
1.Sport - Physical activity,
2.Shop,
3.Home,
4.School,
5.Transport.

Each group aims to write out tips/actions for a selected category of slogans that you can do for your planet.

E.g. Sport -> Play sport in the forest, park, saving on passes. Take advantage of the weather: rake leaves in autumn, shovel snow by hand in winter. Think of it as an extra opportunity to move.
Shop -> Take a reusable bag with you when you go shopping, preferably several to reduce the purchase of plastic nets, If possible buy products without packaging, by weight, read labels, buy locally**,** buy 'messy' fruit and vegetables.
Home -> Choose a quick shower instead of a bath, Turn off the tap when brushing your teeth, Don't waste food, put as much as you eat on your plate, Turn off the lights, When doing laundry, make sure the washing machine drum is full so you don't waste energy and

water, Don't let food spoil. Freeze food you won't eat straight away. Review old electrical appliances and light bulbs for energy efficiency.
School -> Take food from home packed in a reusable container, paper or wax paper, take water with you in a reusable bottle.
Transport -> Use bicycle, scooter, Travel by public transport, travel with friends to work, take care of your car. A well-maintained car emits far fewer emissions.

Responsible choice

Age: no restrictions, paired classes.

Time: 35 minutes

The group is given printed pictures of different products, e.g:

- plastic cup and glass,
- Tap water versus bottled water,
- wood and natural gas cooker,
- fleece and wool jumper,
- exotic wood and pine table,
- banana and apple,
- a photograph of a public transport bus and a passenger car,
- plastic and cotton bag.

Participants get into pairs and choose which product is better for the environmental safety of the Earth.

When all pairs have made their choice we move on to a joint discussion. Why they chose these products and why they think they are a better choice.

Group workshop "Energy - Matter - Combustion" my daily choices and environmental impact

Workshop to be held outdoors (need a place where 3-4 tiny bonfires can be lit).

Participants boil one litre of water in identical pots using different methods - open fire, on bricks, in a tin. We measure the time and amount of wood needed to boil.

Task:
Measure out approximately 2.5 kg of wood - record the exact weight
Pour 1 litre of water into the pot
With the chosen method, we boil the water to a boil trying to use as little wood as possible.
We then write down the following details on a piece of paper:
Weight of wood before cooking:
Weight of wood after boiling water:
Time required to boil:
Weight of wood used:
Conclusions: The use of technology reduces the amount of wood. Longer time to boil also means less wood used.

After the result, a discussion about energy consumption and the impact of our daily choices on climate change locally and globally. If we want to have a lot and fast - we perform worse, and if we rethink the way, show patience, use new technologies - we perform better.

Rule 6 R

Working in six groups

Time: 20 minutes

The aim is to raise environmental awareness and act on the idea of sustainability.

If we want to be responsible consumers, we should rethink our habits and actions. We can start making good changes by applying the 3Rs, the 4Rs or maybe the 6Rs?

Rules: Each group is given one principle from the 6R principles. Through brainstorming, answer the question: How can I realise the principle? How can I realise the principle in my everyday life?

RETHINK

Do I really have to have it?
Can't I meet this need in another way?

REDUCE

Do I really need it?
Do I need to have that much?

REUSE

Do I need to reach for new ones?
Can I use this in a different way?

RECYCLE

What happens when I have to throw it away?
Could it be a secondary raw material?
Is this suitable for reuse?

REFUSE

Will I make use of this free stuff?

ROT (compost)

Can I turn it into compost?
Do I have to throw it in the rubbish?
Trees all around us, or biodiversity at your fingertips

Poland's forests in comparison with those of Europe and the world

Globally, forests are declining. This is related to climate change, conversion of forest areas for agriculture and timber harvesting. This negative global trend does not occur in Poland, where forests are increasing. The scenario will allow pupils to find out how the structure of the world's forest cover is changing and what the prognosis is for the future.

Key question: how much truth is there in the claim that forests are disappearing worldwide?

Lesson objectives:
- Pupil/student explains what forest cover is and states how much it is in Poland, Europe and the world
- Pupil/student lists at least three values of forests
- Pupil/student identifies reasons for the decrease in forest cover worldwide

Methods: Mini-lecture, brainstorming, expert groups, film work, text work
Teaching resources and materials: Computer with Internet access, projector, mobile phones, films
Forms of work: Individual work, group work

Introduction
1.Ask pupils to think in pairs about what a forest is. They then get into fours, in pairs of two, and for a minute, pool the ideas for the concept of a forest. Ask one of the fours to present the definition. Then quote the definition from the Forest Act. After reading it, encourage pupils to point out what in the definition quoted is similar to the definition they prepared in the fours.

Task
2.Give the class the objectives of the lesson and make sure they are understood. Read out the key question: How much truth is there in the statement that forests are disappearing all over the world? Then ask pupils and students if they know the answer. If they do not or the answer is not correct, inform them that they will return to the question at the end of the lesson.
3.Read out the Sustainable Development Goal "To protect, restore and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss". Communicate that today you will address this Goal. Ask pupils why Poland's forest cover is increasing, what activities contribute to this.
4.Ask pupils why the average forest cover in Europe is higher than in Poland.
Summary
5.Conclude by reading out the objectives again.

Homework

Search in statistical yearbooks and other available sources of knowledge how the forest cover of your country has changed from the year 1000 to the present day. Present this information in the form of a timeline.

Sustainable forest management

During the lesson, pupils, working in pairs and in groups, will consider how it is possible to use forest resources while not diminishing them.
Duration: 45 minutes
Key question: what to have and what to be, i.e. how to use forest resources while not diminishing them?
Lesson objectives:
- The pupil/student compares the ways in which forest resources are managed in Poland and in other countries.
- The pupil/student knows how to use forest resources while not diminishing them.
- The pupil/student identifies arguments supporting the necessity of rational management of forest resources according to the principles of sustainable forest management and nature conservation.
- The pupil/student learns about a tool for monitoring the state of forest resources in the world.
Forms of work: Group work, individual work

Teaching resources and materials: Computer, overhead projector, sticky notes markers, smartphones
Introduction
1.Write on the board or display on a slide and read out the main objectives of the lesson. Make sure they are understood.
Work proper
2.Ask the key question of the lesson: What to have and what to be, i.e. how to use forest resources while not diminishing them? Then draw a large circle on the board or a sheet of paper and distribute sticky notes: green, blue, orange and yellow. Ask everyone to think of a solution to the problem on their own, write it down on a green card and stick it around the circle.
3.Then ask the pupils to get into pairs and discuss the solution to the problem together. They are to write their answer on a blue card which they will attach to the circumference of the circle, but closer to the centre.
4.The next stage of the discussion is for the pupils to work in groups of several people to agree on a position and write it down on an orange card which they place on the board still closer to the centre of the circle.
5.The discussion ends with the whole class making a joint decision, writing it on a yellow card and placing it in the centre of the circle.

6.Introduce the term "sustainable forest management" and explain Sustainable management is to balance the needs of nature, people and the economy. The most important condition placed on forests is that they fulfil a range of functions, including ecological, economic, social, for the benefit of present and future generations. Sustainable forest management should ensure that forests are used, including timber harvesting, in such a way that their resources are not diminished while maintaining biodiversity.
7.Ask pupils and students to form teams and prepare a statement in which they present a minimum of three arguments justifying the need for rational forest management in accordance with the principles of sustainable forest management and nature conservation. Ask the forum how each of us can contribute to the protection of forest resources in Poland and worldwide .

Summary
8. Ask pupils to write in their notebooks the conclusions of today's lesson on how to manage Poland's forest resources.

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