

Study of ecological education in romanian education for primary, secondary and high school

In many countries of the world, education for environmental protection has become a new dimension of the curriculum, in order to initiate and promote a responsible attitude towards the environment, to make children aware of the dangers of severe environmental degradation. Protecting the environment has become a major goal of the contemporary world. That is why humanity is looking for solutions to prevent pollution of the living environment and create a balanced environment conducive to life. From an early age, children must learn and respect the laws of nature, being helped to decipher and master the ABCs of ecology, to understand the need to protect the environment, to protect nature. Children must be taught how to contribute to the restoration of nature, maintaining cleanliness and caring for its beauties wherever they may be, to understand that by protecting nature they protect themselves.

Ecological education in kindergarten

This approach presents certain methodological peculiarities, the main purpose being to offer each preschooler the opportunity to show a responsible, personal attitude towards the environment. Any child can become a friend of nature provided they respect nature. All the new aspects arouse the children's curiosity, which is manifested by the many questions they ask, it is necessary to make the child understand that in nature everything is useful. It is necessary that, from the preschool period, children know nature and understand the laws that govern it, because it is both necessary and possible to form an ecological attitude at this age.

Ecological education is based on five objectives:

- Awareness. Children are helped to gain an understanding and sensitivity to the whole environment and its problems.
- Knowledge. Children gain knowledge about how the environment works, how people interact with the environment, how they arise and how environmental problems can be solved.
- The attitude. Children acquire a set of values and feelings of care for the environment, in order to maintain its quality.
- Skill. Children are guided to acquire the skills necessary to identify and investigate environmental problems and to contribute to solving their problems.
- Participation. Children gain experience in using the knowledge and skills acquired, in order to take positive and well thought out actions that will lead to the eradication of environmental problems. The approach of ecological education in kindergarten has certain peculiarities.

Ecological behavior is achieved first, through the power of example and then through the power of the word. Preschoolers are very receptive to what they are shown and told about the environment, wanting to get involved, as much as their powers allow, in protecting the environment. Ecological education starts from the natural interest of children for plants and animals, for what, in general, represents nature for them. Through the ecological actions they carry out with preschoolers, the teachers try to gradually offer, while respecting the age peculiarities, the scientific knowledge that motivates the behaviors and the eco-civic norms regarding the protection of the environment.

Preschool curriculum in the category of optional activities and ecological education

Despite its importance, the ecological education program is applied depending on various factors: competent human resource and availability for this type of activities, the necessary teaching materials, material and social factors. Some may ask, "Why is it important for environmental education to start early in preschool?" Because this is the age at which the formation of the future citizen of the planet begins, from all points of view. On the other hand, it is obvious that we must not forget the

value, for the formation of the future human individual, of those "7 years at home", through which a child is transmitted the basic norms of behavior, which is the foundation of the actions of a citizen concerned about the environment in which he lives. So, the school has an important role to play in educating children to maintain ecological balance. We consider it to be welcomed that since kindergarten children are familiar with the notions of ecology, they are encouraged to take part in outdoor experiments such as: gardening, nature trips or actions to recover damaged areas. It is good to expand these experiences that can be organized closer or further from kindergarten and can be both educational and recreational.

In preschool children, ecological education can be achieved more in the formation of skills and emotional feelings. For middle and large groups and primary classes, there must be a strategy for organizing scientific content and transmitting it in an individualized way. We need to focus this strategy especially on more pronounced formative values built according to the specific abilities of each child's age and pace of development, needs and interests. Therefore, knowing the environment and its problems, at this age must wear practical aspects and provoke emotional feelings. Whenever possible we need to put children in a position to act, to react, to show attitudes.

Young children tend to develop an emotional attachment to what is familiar to them and to which they feel good. One thing to keep in mind when working with children is that if they do not understand why a certain thing needs to be done, they are interpreting that it should not be done. Some positive attitudes toward the environment that can be formed and repeated at this age include actions such as turning off water while brushing teeth, turning off light when we don't need to use it, and knowing that paper needs to be recycled.

The curiosity of preschool children is very high and leads to the accumulation of knowledge about the environment, about its protection, which contributes to the development of children's ability to think logically and to correctly interpret aspects around them.

In order to have an effect on children's development and in the formation of their future personality, ecological education activities must be carried out continuously, as much as possible to be part of the daily program or at least some ideas to be infiltrated in various topics addressed in kindergarten. However, the days dedicated especially to a topic on nature and its protection have a special impact, preferably considering the ecologist's calendar:

March 21 - International Forest Day,
March 22 - International Water Day,
April 1 - International Bird Day,
April 22 - Earth Day,
April 26 - World Laboratory Animal Protection Day,
June 5 - International Environment Day,
June 8 - World Oceans Day,
June 29 - International Danube Day,
August 9 - International Day of Zoos and Parks,
August 26 - International Dog Day,
September 16 - International Ozone Day,
October 4 - International Day for the Protection of Animals,
October 6 - International Habitat Day.

For example, on International Forest Day you can organize a trip to the forest, listen to the movement of tree sap, observe the plants and animals in the forest or you can carry out a tree planting and introduce children to the roles of the forest in our lives and activities human beings who threaten her.

Ecological education activities can be carried out both as optional activities and as integrated activities for all areas of activities in kindergarten and leave it to the educators to design them according to children's possibilities, needs and other factors. The age peculiarities of preschoolers allow

the formation and development of ecological awareness and, implicitly, of an appropriate behavior. Training children in various actions: excursions, practical actions to collect reusable materials, capitalizing on or using them for other purposes (in practical skills classes, decorating the classroom and the home), actions to sanitize the kindergarten yard, the park, the place playground or a corner of the forest, visits to the zoo, readings on plants, animals, soil, water and air pollution (in the activities of language education, education for society), actions of recognition and collection of medicinal plants, we will achieve a development of the spirit of initiative, of the research skills, of the responsibility for the work done, of the curiosity. Therefore, it is necessary that from kindergarten, the child knows the existing life forms in the environment, their diversity and learns to protect them.

By comparing the phenomena, the preschooler learns to think about nature, and the difficulties encountered in knowing it dissipate and the desire to "know" remains awake. This is where the pedagogical ability of the educator comes in, which consists in creating an attractive framework of preoccupations for the child that he can explore with passion. With a lot of patience, perseverance and tact, the child will become receptive and sensitive to the needs of nature, slowly penetrating its secrets, discovering its beauty and harmony. It can arouse children's interest in such projects, a series of activities that show children how certain phenomena happen, how certain things move in the environment, what are the sounds of nature and what are the consequences of human actions on nature. This can be easily done during walks, by collecting materials that can arouse children's interest in objects and phenomena accessible to their age.

All this leads us to the idea that we have the duty and obligation to support children in knowing some elements of the mysteries of the universe, to teach them to explore the world around them, to analyze it, to ask questions and express opinions and to encourage them in all actions. which they undertake.

By involving children in activities of knowing and understanding some facts and phenomena from the near universe, by knowing the beauties and benefits of a life in the middle of nature, identifying problems of environmental degradation, we want to form a correct attitude towards children, responsible for the environment. close to a civilized and healthy life. By choosing for themselves and taking responsibility for the decision, the children become independent, able to manage on their own, confident in their own strengths, which leads to the formation of a positive self-image.

Transmitting information about ecology, acquiring knowledge about the human-environment relationship, educating civilized behaviors and behaviors towards the environment, forming skills and habits to protect the environment, enriching active vocabulary with words from the ecological field, cultivating investigative attitudes, research, exploration of the environment, care of the living corner in the classroom or kindergarten, curiosities in the world of plants and animals, knowledge of plants and animals protected by law, active participation in actions of protection, conservation of nature, environment, harvesting medicinal plants and beneficial fruits health, the contribution of children to the recycling of reusable materials, the acquisition of knowledge, rules of conduct specific to ensuring the balance between individual health, societal and environmental health, direct involvement, active in environmental protection are priority objectives to be implemented throughout the instructive-educational process in kindergarten.

I. Manual activities

a. Theme- Water

Cheerful fish in clear waters

The presentation of the topic began by discussing aspects of water and its importance in nature and for humans.

- What is water?
- How important is water for man and nature?
- Why is it important to stop polluting rivers, seas and oceans?

Fish made by children is an awareness of the importance of keeping water clean and also an alarm signal about excessive environmental pollution. The underwater world is deeply affected by pollution, many species of fish, plants and other marine organisms, such as corals, are in great danger of extinction, which triggers a strong imbalance in both the underwater and terrestrial ecosystem.

b. Theme Paper / cardboard

Boat racing

The presentation of the topic began by discussing aspects of water and its importance in nature and for humans.

- What is the paper and who made it for the first time?
- Why is it important to use paper responsibly?
- Why is it important to recycle paper and cardboard?

Making toys from recyclable materials is an excellent opportunity to pass on to children information about the origin of those materials, the importance of using them responsibly and the importance of recycling them. In this case, by recycling cardboard and paper, we save thousands and thousands of trees from being cut down. Through play, in the most creative way possible, children can be involved in protecting the environment, from a very young age.

c. Plastic theme

Bird feeders

The presentation of the topic started by discussing some aspects regarding plastic waste and its effects on nature and man.

- What is plastic?
- Why is it important to recycle plastic?

Transforming a plastic bottle into a useful object and after its initial use, in order to care for vulnerable birds during the cold winter, creates sensitivity and empathy for the animals around us and at the same time increases the interest in recycling this material - plastic, excessive used by humans and also extremely harmful to the environment.

d. Theme Animals

Pop-up model - your favorite animal

The presentation of the topic began by discussing aspects of animals, both domestic and wild.

- What domestic and wild animals do you know?
- Where do they live?
- How can we protect the animals?

Making a three-dimensional model (pop-up) requires skill and attention, and the spontaneity of the composition, given by the elements of surprise - pop-up - increases the child's interest in the proposed theme. Choosing a favorite animal as a subject involves a degree of identification of the child with that animal, thus increasing feelings of empathy and tolerance for animals in general.

e) Topic Green energy

Wind farms

The presentation of the topic began by discussing aspects of electricity, its advantages and costs for nature

- What are the main sources of electricity?
- What is meant by green energy?
- How can we use the force of the wind in a beneficial way for our comfort and at the same time for the good of nature?

Windmills, similar to windmills, operating on the same principle as windmills are a good alternative for producing electricity, so used in modern society.

II. Activities and games in nature

1. Who am I?

Purpose: developing the spirit of communication, consolidating knowledge.

Materials needed: drawings or photographs with different animals

Deployment:

The educator prepares a set of drawings or photos with different animals (their number should be at least equal to the number of children in the group). For the children from the small and medium group, the images can be chosen together with them, giving them the opportunity to remember them. The pictures are placed face down and the first child will choose one of them at random and will look at it, without being seen by the other children. They will, in turn, ask a question to guess the species in the picture. For example: does the animal in the picture have four legs? flying? does it have black spots? and so on. The one who answers the questions only answers "yes" or "no". If the questioner has received a positive answer, he is allowed to ask another question. It can continue until the first "no", when the next question is asked by another child. The one who guesses the animal will choose another image and answer the questions.

2. Find your mate on Noah's Ark

Purpose: to develop creativity.

Materials needed: drawings or photographs with different animals.

Deployment:

The educator prepares for each player labels with the image of animals. Each animal appears on two labels, for example, if there are 30 participants, labels with 15 species are prepared, 2 labels from each species. The children draw a label and do not show it to the others. Each player must imitate the movement of the received animal and, based on the movement, find his "match" among the multitude of creatures on Noah's Ark. Players are not allowed to speak or imitate the sound of animals, only movement. Variation: children can also imitate the sound of the animal on the card, but they are not allowed to speak.

3. Guess the animal

Purpose: verification and systematization of knowledge about known animals

Materials needed: pictures of familiar animals (for each child).

Deployment:

The children listen to the riddle told by the educator. The child who guesses what animal it is, picks up that card with the image, names the animal, says what kind of animal it is, where it lives, what it feeds on, or other things it knows about that animal, or possible feelings about it. For those animals that no child can guess, helpful questions can be asked. Example: The teacher says the riddle: "Spin the lily - slowly / Without fork and string." The child who has the token with the cat picks it up, names the animal (cat), then says what he knows about it. Several children may be involved in describing an animal. Finally, for the fun of the children, they will imitate the sounds made by the described animal. Variety: It can expand the scope of the game, including riddles and images with plants or various elements of nature.

4. Team logo

The goal: the development of team spirit, the development of creativity.

Required materials: twine, nails, adhesive tape, crayons, scissors, hammer, pegs

Deployment:

The group is divided into teams. The number of members of each team will be decided as needed - they can be two large groups, or teams with a fixed number of participants. Each team must choose a team name and must "fabricate" a symbol, an emblem of things, natural objects. For the manufacture of the emblem can be used nails, adhesive tape, string, possibly crayons to write on the symbol. When evaluating, the creativity is scored, how suggestive the emblem is and if it is in accordance with the chosen name. Variants: The emblem can be manufactured using only certain colors (green and yellow, green and blue, etc.). Instead of an emblem, a team flag can be created.

5. Make your own perfume

The goal: to discover nature with the help of the senses.

Materials needed: plastic boxes

Deployment:

This activity will preferably take place in the forest. The children will receive a plastic box from the educators and each one will have to prepare their own perfume in that box. For this, the children will spread around and will put in the box elements of nature (leaves, flowers, herbs, fruits, etc.), to create their perfume. They will be able to add more and more elements, until they get the aroma that will delight them. After the children have created their perfume, a circle is formed and each one smells once again its own combination of flavors after which the boxes will pass from hand to hand, in a certain sense, so that everyone can smell all the perfumes. After one or two rounds, in which the boxes pass "from one nose to another", the children must recognize their own perfume and stop the box, without passing it on. There will also be time for everyone to express their views on their feelings. Through this type of activity, children can get closer to nature using all their senses.

6. Path of ants

The aim: understanding the types of orientation (understanding the orientation of animals and other senses than the visual one), knowing and understanding the importance of pheromones, facing the state of discomfort, tension.

Materials needed: scarf, twine, volatile oil, pot, water

Deployment:

The game leader soaks a string of several meters in water mixed with volatile oil or you can use herbs from nature, then spread it in the grass. The participants are divided into teams, they are blindfolded, they are shown where the embalmed string begins. Players have the task of reaching the other end of the path, walking on all fours and using only their sense of smell. Finally, after the evaluation, it is recommended to discuss the importance of the sense of smell in the orientation of many animals, for example understanding the connection of the sense of smell - pheromones or why ants walk in a row on the same path.

7. How are bats oriented?

Purpose: learning and understanding the concepts of prey-predator, natural selection, hearing in space, developing empathy.

Materials needed: scarf

Deployment:

The way bats are oriented is an interesting phenomenon for children. This game can be used to facilitate understanding of how ultrasound is reflected, making it possible to orient bats. A child will be blindfolded and he will be a bat. The others are scattered through the classroom or if they are outside, on the delimited playing territory. Either they group together or they stay one by one, they will represent the objects to be avoided. The blindfolded child must reach from one corner of the play area to the other. The "bat" makes sounds. The objects around him reflect the sounds. If the "bat" turns in a

direction to a child and says anything, be it his name or the word bat, the object / child to which he is turned, responds like an echo and says the same word. If he is very close, he answers immediately, if he is further away, he has to wait a little with the echo. If the bat hits an object, the "bat-child" changes (it is not recommended to be changed with the child it hit, then everyone will crowd to be touched by the bat). Kids love this game. It improves the tolerance of children. It can be explained how difficult it is for blind people to orient themselves. The development of empathy is very important, both from a social point of view and from the point of view of nature protection. Variations: Some of the children who sat and played the role of detours will now be moths. We will also have objects and butterflies, no one is moving. The bat child must find all the butterflies in the room. In this case, the child-bat says "bat", and the child who sits answers "object" or "butterfly" depending on what it is. If it is an object, the bat child avoids it, if it is a butterfly it catches it.

8. . The old fox

Purpose: to keep quiet, to develop concentration, to hear in space.

Materials needed: scarf, a symbolic object for prey (boulder, flag, other scarf, etc.)

Deployment:

The educator takes on the role of the old fox who teaches the younger generations how to take care of their prey. The old fox stands in the middle and defends its prey (it can be anything - a boulder, a flag, etc.), the others, the young ones, sit around him in a circle. The aim of the game is for the participants to steal the prey from the old fox. But she has very fine hearing and excellent eyesight, and young people have no chance of preying. To give the young foxes a chance, the old woman closes her eyes, ties herself with a scarf and uses only hearing. Those in the circle must keep quiet and sneak as close as possible to the old fox. If the person in the middle hears a noise, points in that direction, the young fox he was pointing at must stop moving. After a while, when we have many frozen foxes, they can return to the starting point and re-enter the game. Who is quite skilled, moves silently and manages to grab the prey. That means he learned a lot from the old fox and can take the place of the middle one, and the game starts again.

9. Close your eyes and listen

The goal: to discover nature.

Necessary materials: -

Development: The daily hustle and bustle of traffic often make us insensitive to the enchanting trills or hums that exist in nature. During an educational trip or outdoor outings, even in a city park, the activity described below can bring children closer to their surroundings. Going out with the children in nature, away from the urban noises, the educator will ask the children to find a quiet place for themselves, where they can sit, close their eyes and listen to the sounds of nature. It is known that if we close our eyes, the other senses "sharpen", we are no longer distracted by other things around us. After a few minutes, the group gathers again and each child will tell what kind of sounds they heard (possibly might try to imitate them) and what feelings they experienced during the activity. Children can also try to count the distinct sounds they have perceived. Like other activities in the category of discovering nature, "Close your eyes and listen!" it will help children to be more sensitive to everything around us, understanding both the complexity and the wonder of nature.

10. Owls and crows

Purpose: concentration of attention, arousing interest.

Materials needed: 2 pieces of string, prepared statements

Deployment:

This is a catch-up game enriched with elements of knowledge of the environment. The group is divided into 2 teams: owls and crows, which line up face to face along two parallel lines. The educator makes

certain statements, with a level of complexity adapted to the age of the children, and the children have to decide if they are true or false. If they are true, the owls must catch the crows, if the statements are false, the crows catch the owls. Those caught retreat to a specially demarcated place.

11. The little detectives of nature

Purpose: discovering nature, developing the spirit of observation, cooperation, team spirit.

Necessary materials: collection box, notebook, colored pencils, possibly 1 camera / team

Deployment:

We offer you this game on the occasion of a nature outing, a trip. The group is divided into 3-4 teams, depending on the number of children. Each team is given a to-do list to complete. The list may contain the following instructions: - Collect 2 fruits! - Photograph (or draw) 5 species of plants, BUT DON'T BREAK THEM !!! - Photograph (or draw) 10 objects that have nothing to look for in the forest! - Photograph (or draw) traces left by animals (fingerprints, debris, feces, holes, etc.)! - Gather natural things from which you will create with your colleagues the symbol, the emblem of your group or team! As an option, 2-3 interconnected lines can be marked with a carioaca in the palm of a child in the team and the model thus drawn must be identified in nature by the participants (eg the branches of a stem, the ribs of a leaf, etc.)

12. Discover the clues

The goal: to discover nature.

Materials needed: list of clues

Deployment:

The beauty of the details around us often goes unnoticed, and through this activity we try to encourage children to discover it. The educator will draw up a list of requirements that young people must discover. Depending on the season and the place where the activity takes place, they will be asked to find things like: - something that is red; - something that is white; - something flying; - bird food; - food for insects; - food for deer; - something that produces oxygen; - something soft; - something loud; - something that can be part of a bird's nest. The list may, of course, continue or contain other kinds of clues, but it is important to note that all materials must be natural. In order not to encourage the breaking of too many flowers, branches, fruits or leaves, we can move with the whole group to the element found by each participant.

13. Fingerprints from nature

Purpose: identification and recognition of animal footprints, development of patience

Materials needed: plaster, water

Deployment:

Rarely are we lucky enough to see the wild animals around us, instead we have shawls, hairs, deer antlers, deer antlers), deer, swallows, etc. On the occasion of any trip or outing in nature, much larger to find the traces left by them, either fingerprints, shelters or various parts of them (depending on the season, we recommend that you always take with you gypsum dust and a little water. If you are lucky, children will find traces of animals in the mud or in a finer basement. You can immortalize these traces by mixing the plaster with water, and then pour the animal's footprint. You have to wait 30-50 minutes for it to harden (time depends on the amount of water used and the season). This way, you will have the opportunity to keep and take home a piece of nature. At home, in the gym, you can reuse these prints, if you make homemade plasticine (ingredients: salt, flour, water, oil) and take the pattern of the prints. After drying, they can be painted, colored, customized. Different leaves can be cast in plaster. 106 14. Nature models Purpose: nature observation, identification of tree species based on leaves Materials needed: paper, wax crayons of different colors Children collect several types of leaves, with different shapes and types of ribs. Place them under a sheet of paper and hatch them over the white paper with a

wax pencil (only where the leaf is underneath). Participants can combine several types of leaves and several colors - they will get a very beautiful picture, a pleasant memory from the trip. The bark of a trunk can also be hatched by placing the sheet of paper directly on the trunk of the tree.

14. Where will I live?

Purpose: defense of personal interests, formation of social opposition in the positive sense of the word, assertiveness.

Materials needed: pictures of bird species and their nests, music player to play the sounds of birds, CD with the sounds of birds used in the game

Deployment:

Photographs are prepared with different habitats where a bird can build its nest: the crown of a tree, the trunk of a tree with an artificial hollow, the grass in which a nest is hidden. We prepare the pictures with birds (we choose those species that have a characteristic song and build their nest in different places): grangur (nest in the canopy), starling (nest in the hollow), nightingale (nest on the ground, in the grass). We paste the pictures with the nesting places on the walls, on the chairs, on the trees, etc. - we put more pictures than the number of children. The children will play the role of birds, the picture with the species is stuck on their chest. We tell them where each bird builds its nest, then they learn the song. We circle them and put one of the three sounds on the computer (or sound player). Those birds that hear their song stand up and flutter their wings. We listen to the sounds in turn until at least some of the children recognize their own song. The next task of our birds: whoever hears his song, must occupy a nest. After each bird has occupied its nest with or without our help, it is our turn: we will turn into negative characters, who do not love nature and do not take care of it. We approach a picture with an unoccupied nesting place and take it from the wall, threatening to destroy it: e.g. I will cut down this tree. I will plow this beautiful meadow. After we have "destroyed" several habitats, we approach a habitat that is already occupied and take it. Usually, the first child is surprised, does not understand what is happening, does not react in any way. Do you allow me to destroy your home? Why don't you defend her? When I hear this question, almost all the children attack us by imitating the chirping of birds and pinching our fingers. He defends himself.

After attacking everyone's nest, we approach a free, unoccupied picture again. In general, again, any reaction from the children is missing. Do you only protect your places? Don't you care about the neighbors? At such questions, the whole group attacks us, chirping and pinching. At the end of the game, a discussion can take place, telling them that the person must be careful and take care not only of his personal belongings, but also those of others. This game can be played without the initial part with the sounds.

15. Nest renovation

Purpose: development of skills to comply with the rules and regulations imposed by collaboration, development of fine motor skills.

Materials needed: minimum 5-6 wicker baskets, branches, plastic animals (food for storks)

Deployment:

In this game, each child will be a white stork. Before starting the game, the children practice the stork's step (with the knees raised to the abdomen, then the legs extended). The educator prepares some round braided baskets with a diameter of about 50 cm and a height of 20 cm. Cut twigs about 30 cm long, but of different thicknesses, more than necessary to fill the baskets. Sets of plastic animals can be used as food for storks (we must have both animals that the stork eats and animals that the stork does not eat). The branches will be scattered and the food hidden, the baskets being placed near the branches. These baskets are old nests that need to be renovated or rebuilt. If there are no financial possibilities to purchase the baskets, the nest site can be arranged down to the ground. The children take on the role of storks that are still in the distant lands of Africa. I get the news that spring has arrived in their village

and people are waiting for them back. The storks line up and fly home with outstretched hands, then look for a nest. Surrounding the nest, they realize that it needs to be renovated. The participants are warned that they have to build a nest conducive to laying eggs and they understand that they have to carry some more branches. The branches must be brought according to a certain rule: in the field they walk like storks, with the step described above, each stork brings only one branch at a time, which it does not catch by hand, but with two branches, as if it were a pair of tongs. - these branches remain in the child's hand until the end of the game, these representing the stork's beak.

At first it is difficult for children to handle the two branches, but along the way all sorts of new ideas appear (eg some place a third branch on the first two initials). If it is difficult for the little ones to catch and handle the two branches like pliers, then we can exempt them from this rule and they can carry the branches one by one with their hands. In each group there are children who try to cheat, to carry several branches at once. They often build hunchbacked nests, but from these the eggs will roll. There were also cases in which they had stolen the branches from the neighboring nest. Here we have the opportunity to explain to the children that animals always gather only so many things, objects, food, etc. as much as they need and they don't steal from a neighbor, not even a branch. Variations: After renovating the nests, they lay eggs (imaginary) and lay on the nest to hatch. After the chicks have hatched, they are very hungry. Parents are looking for food and have access to pre-prepared plastic animals. The animals that are eaten by the stork are placed in the nest, and the others - next to the nest. Finally, it is checked whether the animals have been selected correctly.

16. Preparation of an animal drinker

The goal: the formation of a conscious attitude towards nature, of compassion and charity, of responsibility.

Materials needed: screed, shovel 108

Deployment:

On hot summer days, lack of water is the biggest danger for many animals. Sewerage, asphalt and concrete have led to the almost complete disappearance of water sources for birds. By placing watering cans we can increase the number of winged guests, who will visit us not only to quench their thirst, but also for bathing. Feather cleaning is one of the most important activities in the life of birds. The watering can can also be a decorative object for the garden. There are many types of drinkers - standing, sculpted or built in such a way as to look as natural as possible. The watering can not be deep, it reaches an old flat dish, it is good if it has a thicker edge on which to place the birds when they arrive. It is important to always provide fresh water. If the drinker has no edge, we can put in it a bigger stone or some branches on which the birds can stand. The drinker can be dug into the ground. It is important to place it in a quiet and shady place. If we have cats or dogs, it is recommended to place them in a higher place, on a support. After placing the drinkers, it may take days for the first bird to appear, but it is greeted with joy and enthusiasm.

17. The heartbeat of trees

Purpose: concentrating attention, arousing interest, forming positive feelings towards nature, observing the similarities between very different species.

Materials needed: stethoscope

Deployment:

Trees live, feed, breathe, and their "blood" flows through their bodies - just like humans. The heartbeat of the forest can be heard especially in spring, when the sap starts towards the branches and buds. We are looking for a tree with a trunk of at least 20 cm, with a thin bark, preferably a deciduous species. The stethoscope is firmly attached to the trunk. It is recommended to try several points. Children will become curious, they will want to know where the sound comes from. After listening to the trees, they

will listen to their own heart (or that of their colleagues) and compare the sounds. The similarities and differences between the movement of plants and animals and humans will be discussed.

18. Disordered nature

Purpose: concentration, exercising attention, arousing interest, developing the spirit of observation

Materials needed: various artificial or natural objects

Deployment:

Along a trail or in a forest hide 10-15 objects that are inappropriate in nature, in general, or simply do not belong to that landscape. To make the game more interesting, you can hide objects in less visible places. Children need to find these things hidden in a certain amount of time. The team with the most collected objects wins. Things that are harder to detect can also be used, such as: apples under an oak, beech leaves under a fir tree, oak leaves on bushes, etc.

19. Color naturally

Purpose: discovering nature, coloring plants, developing creativity

Materials needed: paper, pencils, possibly glue

Deployment:

First of all, the children have to draw something, depending on the theme chosen by the educator, for example a plant, an animal or a landscape. They will receive paper and pencil, 109 but are not allowed to use colored pencils or crayons. The pencil will be used only for contouring, and for coloring children must find certain solutions through which to use elements from the surrounding nature. If they can't guess, we can help them with some ideas: flower petals, various parts of the plants, moist soil, they can stick bark, moss, pebbles, etc. on the drawing.

20. What would happen in nature?

Purpose: the development of logical thinking, the awakening of interest, the consolidation of knowledge about nature.

Materials needed: images of plants, animals, birds, humans, sun, water and more.

Deployment:

The educator presents all the children's images, then in turn excludes one of the images, and the children must say what will happen to the other "objects" if that element disappears on Earth. Conclusions are drawn, how important each of these objects is and how interdependent they are.

21. Ecological signs

Purpose: to develop creativity and the ecological spirit.

Materials needed: drawing sheets, colored pencils

deployment:

It is proposed to the children to draw signs of nature protection on various topics: "Do not break the plants. Let the beautiful flowers stay in nature" "Don't destroy the birds' nests" "Don't catch butterflies, crickets and other insects. Let them enjoy life." "Don't throw trash on the floor, etc." In order to raise environmental awareness, it may be proposed to develop a "Code of Conduct for Nature". The children come up with different ideas and in the first stage they all write down, without being criticized. They are then discussed and presented in a logical order. In the end, a code will appear containing the rules of conduct that the children will have to follow, and those who violate them will be attracted by their colleagues.

22. Our tree

Purpose: discovering nature, consolidating knowledge about nature

Materials needed: colored paper, doodles, paints, glue, scissors, a large sheet of paper, natural materials (feathers, pebbles, leaves, branches, etc.).

deployment:

During a trip in the middle of nature, children can collect various natural materials. Later, illustrative materials for the class are made together with the children in the form of a tree, on which different animals, birds, harmful insects, etc. live. Do not forget the plants, fungi and organisms that populate the roots. On such a "tree" children can paste during the game the images of the animal that lives there. They will look for, together with the educator, the animals that: live in the crown of the tree, are harmful, live under its crown, feed on the fruits or other parts of this tree

23. We do not want an environment that we can use only once

Purpose: to develop the ability to distinguish between disposable and durable objects, awareness of the waste problem.

Materials needed: disposable items

deployment:

The educator compiles a collection of disposable objects. These should be well known, such as: cans, cola bottles, paper packaging, glasses, plates or plastic cutlery, etc. During the game, each child must find an "alter ego" for an object included in the list, ie an object of multiple or permanent use, which could replace it. This game can also be organized in teams, one of them naming the object and the other alternative. Finally, the totals are made and the problem of disposable objects that generate large amounts of waste is discussed, as well as the importance of using sustainable objects.

24. Mixed animals

Purpose: to consolidate knowledge about domestic and wild animals; recognition of them, of their living environment

Materials needed: silhouettes or images with wild and domestic animals, twine

deployment:

The game is collective. It is delimited with a string by two circles. In one of them are placed the figurines or images with animals, mixed domestic and wild, and the other remains empty. The educator tells the following story: "One day, finding the gate open, the animals from the Zoo snuck out and entered a nearby yard, mingling with the domestic animals that were in that yard. "You have to help the caretakers choose the animals to take back to the zoo." After that, each child, in turn, chooses a wild animal and moves it to the other circle (in the Zoo). Correct any mistakes.

25. Natural color palette

Purpose: discovering nature, developing the spirit of observation.

Materials needed: colored paper in as many colors as possible, possibly boxes for collecting things

deployment:

The group is divided into pairs, each pair receives a colored paper, they must find that color in nature.

Variants:

1. The pairs receive a sheet of colored paper and do not show the color to the other pairs. Pairs collect and / or write down as many objects of that color as possible. Based on the objects collected, the other participants have to guess what color they received. The game can also be played with the help of different forms.

2. The group is divided into three teams, each choosing a color from the three basic colors (red, yellow, blue). Teams must find in nature (apart from animals) as many shades of the received color as possible. Only natural things are accepted, they must be presented by name. At the end, the closest shades are placed next to each other, the teams creating a color palette with the help of nature.

26. Observations in kind

Purpose: discovering nature, consolidating knowledge about nature

Necessary materials: -
deployment:

Another type of activity through which ecological education can be achieved in kindergarten is nature observation. Thus, on the topic "Traveling birds" will be presented to children 111 stories and poems about storks or swallows and then a visit will be made to observe some nests, children thus managing to directly observe swallows' nests or storks and even parents feeding chickens. These observations allow the educator to present to the children some elements regarding the ecological balance, the relations between living organisms, as between them and the environment, the phenomenon of disappearance of migratory birds during migration and the consequences of their decrease.

Ecological education in the primary cycle

This can be achieved through any type of extracurricular activity, scientific, literary, artistic, plastic, sports, etc. activities. The forms of realization are diversified: observations, experiments, scientific stories, drawings, practical activities, walks, hikes, excursions, slide shows, movement games, fun, tourist orientations, ecological labyrinths, collections, exhibitions, shows, watching TV shows, expeditions, ecological skit camps, competitions.

Through ecological education, children must acquire knowledge, attitudes and motivations to act individually and as a team in solving problems related to environmental protection. Ecological education cultivates students' love and respect for the world around them, forms attitudes of disapproval towards those who violate environmental protection rules, and cultivates interest in promoting the idea of a healthy natural environment.

The young school child should not be bombarded with theoretical knowledge, but should be involved in practical activities as varied and attractive as possible, to meet the growing sensory curiosity. It is not the wealth of knowledge of biology that is of primary interest, but the knowledge and maintenance of the following states in the child's inner forum:

- the desire to know the universe of the living world;
- the power to protect life forms.

The objectives pursued for the realization of ecological education in the students from the primary cycle are:

- to be aware of the interdependence between the quality of the environment and the quality of life;
- to acquire knowledge regarding the complexity of the relationship between the species of an ecosystem;
- to take an attitude towards any activity that can destroy the balance in nature;
- to have a positive conduct, to participate in the activities of environmental protection, condition of a healthy life, in full harmony with nature.

The objectives of ecological education in the school can be achieved in two ways: through the contribution of several study disciplines; through extracurricular activities. Starting from the premise that ecological education involves several components (knowledge, attitudes, behaviors) that are acquired over a long period of time, it is natural that this side of education is in the attention of several disciplines and in all stages of preparation and training. of students.

The discipline of Science has a great potential in the ecological education of students. This discipline ensures in an organized way the acquisition of knowledge through activities of observation, identification, grouping, games, practical activities of the world around us.

In the Romanian language and literature discipline, capitalizing on the texts in the textbook, students get in touch with the beauty of nature with the help of words, make artistic creations based on images from nature.

In the Geography discipline, students are offered rich knowledge about relief, running water, stagnant water, flora and fauna.

In the discipline Visual arts and practical skills, the students take care of the plants in the class, make toys from reusable materials, make collections of leaves, seeds, other materials that they then use in their activity. Plastic education contributes to the development of artistic sense, to the perception of balance, harmony in the environment offers the possibility to transpose through artistic means the beauty of nature.

The subject of Civic Education addresses topics that can be successfully used to form appropriate attitudes in children's relationships with the environment.

Some topics provided by the history program give us the possibility to achieve tangential environmental education.

Math problems of finding land areas occupied by different crops or forests, finding quantities of different materials in nature can lead students to believe that the environment must be protected, that they can collect reusable materials to preserve natural resources.

A real ecological education is also realized within the extracurricular activities. The most eloquent way is the environmental project. Due to its complexity and the time that each project coordinator allocates for its development, the project can achieve several objectives. At the same time, the project involves a wide range of activities and, for this reason, the theme can be diverse. The environmental project is one of the projects that can be realized with the full support of the children involved. Its usefulness is that it helps students understand the connection between man and nature, between the knowledge acquired in different disciplines and the world outside the school, gives students the opportunity to get involved and organize through individual or group investigation, by leading the process of education, it puts them in touch with the community and creates the opportunity for them to publicly support their opinions.

Didactic games used in ecological education activities in the primary cycle

1. The bag of surprises!

Purpose:

- Recognition and naming of objects for personal use;
- Demonstrate and name the action we take with the help thereof;
- Consolidation of personal hygiene skills.

Rules of the game:

The called student chooses an object from the bag, touches it and without looking it names it, then shows it to the children and says after recognizing it why it should be used. The others will perform the action that can be performed with that object (where applicable).

Game elements: opening and closing the bag, guessing, imitating actions, applause.

Teaching material: a bag containing various objects for personal use: glass, toothbrush, comb, mirror, towel, soap, soap dish, handkerchief, napkin, clothes brush, boots brush.

Game development:

The teacher will bring a bag of surprises to class. The invited students will come in front of the class, and without looking they put their hand in the bag and say: "I found a toothbrush". He will take it out of the bag, show it and explain the need and importance of using it (how to use it, when and why it is good to use it in a certain way) after which he will have to imitate its use. If the answer is good he will be applauded, and if it is not correct, another student will be called to give the correct answer.

2. Let's protect nature (little environmentalists)

Purpose:

- Checking students' knowledge about the rules of behavior

Specific to ensuring and protecting nature.

- Training the ability to collect data necessary for the purpose of informing a

3. Theme given.

- Activating students' vocabulary with words that name antonyms.
- Consolidation of the skill to interpret a song as expressively as possible

Known.

Operational objectives:

1. To identify the images in which man acts in favor of the environment;
2. To identify the actions of man through which nature is damaged (which cause destruction);
3. To place in the appropriate album the previously cut image, motivating the choice;
4. To find the antonyms of given words;
5. To interpret correctly the song and the text of a song.

Teaching task:

- Identifying and grouping images according to their consequences on the environment (protecting or destroying it).
- Choose words with the opposite meaning and use them correctly in sentences.
- Proper interpretation of a familiar song.

Rules of the game:

The right answers are applauded, the wrong ones are corrected by colleagues.

The team that places the chips first correctly wins.

Game elements:

Movement, handling of materials, applause, surprise.

Game development:

The group will be divided into two subgroups, each to be placed which must be placed on the panel according to the following criteria:

- on the white panel are placed the images that represent actions of environmental care (planting trees, collecting and throwing garbage in specially arranged places, etc.)
- on the gray panel are placed the images that represent actions of environmental damage: (cutting trees, fire in the forest, throwing garbage on the ground).

After each team places the pictures, they check with the whole group if they have been placed correctly. The team that made no mistake wins

Alternative:

Students have two albums:

1. To protect nature.
2. Do not destroy nature.

Prior to planning and conducting the game, students are tasked with cutting images of human actions on the environment from magazines or books at home. Each child will paste their image in the album they think fits, motivating the choice.

In the second part of the game there will be a language exercise: the students will be told words, and they will find its opposite (antonym) and will formulate sentences with the two antonyms.

The chosen words must correspond to the theme of the game and put the students in the situation of being aware of the two ways of acting on the environment: one beneficial and the other harmful.

Example: clean - dirty, polluted - unpolluted, good - bad, etc.

In the last part of the game, they will perform a well-known song in which the love and care for nature is highlighted: "our street is beautiful".

Where every living thing lives

The goal:

- Verification and consolidation of knowledge about nature;
- Consolidation of orientation skills.

Teaching task:

- Recognizing the place or environment in which different living things live and formulating these relationships in developed sentences.

Teaching materials:

- Large drawing sheet with 4-5 folds by bending the paper upwards
- Cardboards with pictures of different creatures (animals, birds, etc.)

Game development:

The game takes place individually. Mix the images and sit on the chair. A student comes to the department, takes a card, looks at it and names the living thing represented by the image, then sits next to the image on the board that shows the living environment of the animal. He returns to the class and formulates the sentence. The assessment is made and two points are awarded (one of the two) for both correct answers (one for association and one for the formulation of sentences).

Students who fail to make an association between the living thing and her place of residence have the right to draw another card and if they answer correctly, they are only given one more point.

After solving the task by the student, the teacher's appreciation is communicated.

Can you answer correctly?

Purpose:

- Consolidation of knowledge related to the three living environments (water, air, earth).
- Education of basic skills for environmental protection.
- Checking students' ability to make sentences.
- Verification of work and practical skills - household.

Operational objectives:

1. To group the animals according to their living environment (water, air, earth);
2. To remove from the paintings those elements that can pollute these environments (nature);
3. To formulate sentences based on the presented images;
4. To apply to the corner of nature the practically-trained household skills.

Teaching task:

- Grouping animals on the three living environments: water, air, earth.
- Removal of pollutants from the table for the respective environment.
- Caring for plants and fish in the corner of nature.

Teaching materials:

Three paintings representing the 3 living environments: water, air, earth, animal silhouettes, images representing actions made by students, a white ball and a black one for each child.

Game development:

In the first part, students intuit the three pictures displayed. Then I come in a row and choose from the table a token with an animal, name it and place it on the panel that represents its living environment. The teacher also chooses a token that she places incorrectly and the students have to correct it.

After grouping the animals, the students look at the pictures trying to find those elements that can harm nature (pollute the environment). Ex: bottles, boxes are thrown into the water. There is a lot of smoke in the air.

In the second part, the teacher shows in turn an image that represents an action taken by man. Students specify whether or not the image is harmful to nature. If the action is in favor of nature, raise the white ball, if the action harms nature, raise the black ball. Instead of the images used as support, different actions can be mimicked, either by the teacher or by the students. Finally, household activities are carried out in the corner of nature, and then the students will plant flowers in the school yard, collect papers.

The circle of nature

The goal: to understand the connections, the connections that are made between plants and animals.

Teaching task: the name of the elements in the environment, of the place they occupy;

Game elements: surprise, arranging children with appropriate chips, competition, applause, rules.

Rules: students will join in pairs depending on the connections between plants and animals they represent.

Teaching material: badges representing plants, animals.

Game development:

Students are given labels with the names of plants and animals such as

Be: wolf, wheat, worm, bird, mouse, rabbit, grass, tree, deer, owl, insect, people. These labels are attached to the chest. Students will join in pairs according to the connections between plants and animals they represent. The student who has the "grass" badge will join the student who has the "deer" badge, who will then hold hands with the student who has the "people" badge, etc. In the end, all the students will hold hands forming the circle of nature.

Land, air, water

Purpose:

- Consolidation and verification of knowledge about animals and their living environment.

Game elements: guessing the animal, competition, applause.

Teaching material: a small ball

Participants: can be played by any number of players in a room.

Game development:

The players sit in a circle, in a sitting position, and the leader of the game in the middle of the circle; from where he throws the ball to a player while saying one of the words: dry, air, water.

The player who received the ball is obliged to name a being who lives in that environment. For example: if the water cries, the dolphin will answer.

Players who do not respond quickly or name beings who do not live in that environment receive a penalty point.

Who knows wins

Purpose: systematization of knowledge about:

- Elements necessary for the life of plants, animals and humans (water, air, sun);
- The importance of plants (especially forests) for animal and human life;
- Causes of imbalances in nature (global warming, drought, storms, the disappearance of animals, etc.).

Operational objectives:

- List the elements necessary for life on earth;
- Understand what happens when one of the elements is missing;
- Explain why the forest is the "green lung" of the planet;
- To list the causes that determine the imbalances in nature;
- To find solutions for saving the planet and implicitly of animals and plants;
- List some rules of behavior on the trip;

Game elements: competition and handling of materials.

Teaching task:

- Sorting images according to the requirements of the game leader;
- Children work in two teams.

Rules of the game:

- Students consult (in groups) choose a representative who formulates the answer.

Methods and procedures: conversation, explanation, exercise, problematization.

Teaching material: images (drawings, CDs, videotapes, slides) with:

- Plants (animals) that lack one or two elements necessary for life (one for each team);
- Burned forests, deforestation;
- Polluted waters and dead fish or other animals (birds, mammals);
- Aspects in cities with factories that pollute the air, cars that eliminate exhaust gases;
- Aspects of nature during drought;
- Nature pollution with garbage (garbage in the clearing and in the forest after the departure of hikers);
- Gathering reusable materials (paper, plastic).

Game development:

Depending on the imagination of each teacher, different materials can be used to contribute to the achievement of the proposed goal. The game takes place on two teams, in the form of a competition. The teacher sets his / her questions according to the operational objectives pursued and the material used, the same for both teams. After solving each task, the team receives (on a panel) various incentives, imagined by the teacher. In the end, the team that won the most incentives is the winner. The teams will have names (in the field of ecology: "dolphins" and "whales") and will have prizes that consist of books with ecological content ("doxi", "blue planet", badges).

So yes! Not so!

Teaching task: grouping sentences according to the criterion so yes! Not so! By raising your hand for so yes! And verbalization for no!

Game development

The following will be written on the chips:

I take care of animals and plants.

I torture animals.

I play nice with animals.

I respect animals and plants.

I destroy plants.

They protect plants and animals.

I love the beloved flowers in the park.

I feed the birds and make them shelters.

Didactic game:

River pollution

Game development:

5-6 students holding hands will perform the movements of a river water. Then, 5 or 6 students will represent the fish, imitating the movements of the fish through the water. In the water will appear 5 - 6 students who have on their chest labels on which are written the names of some waste or pollutants: „, garbage ", „, chemical ", „, detergents ", „, bottles ", „, packaging ", etc. When the pollutants enter the water, the fish get sick and the children start coughing, squatting on the ground. There are 3 children who clean the garbage water, and the "fish" recover and start swimming in the water again.

Ecological campaign

Game development:

Teams are given a certain amount of time (15 minutes) to agree on the environmental campaign they consider a priority (waste recycling, area cleaning, animal protection, tree protection, etc.) and how

young people can involve (direct participation in the campaign, fundraising, making posters or a radio / TV report)

All teams are to mimic that action. The team guessing the mimicked subject gets a point.

Didactic game

Naturalist collectors

Participants: play around the table, in groups of 5-7 players.

Materials used: 32 7/10 cm cards are made.

On one side of these cards are pasted pictures representing plants and animals of different species. A chosen species will appear on 4 cards, but on each card there is another plant or animal of that species.

The players are numbered, and then the cards are shuffled and divided into 4 each, the remaining ones are packed in the middle of the table.

Holding the cards in their hand, in the shape of fans, the players will observe the subjects on the cards, deciding to collect one species or another and keeping this a secret. The cards that are the object of the collection will be placed on the table in front of the player, who remains in hand with the subjects that do not interest him.

The game starts with player number 1 who picks up a card from the pack (the card above), if he completes his collection he will stop it by placing another card to his right.

If, on the other hand, he is not interested in this card, he can put it on the bottom right.

The game continues with player number 2, ie the one to the right of number 1, who must pick up a card. This time he can pick up either a card from the pack or the card taken down by player number 1.

Garbage relay

Game development:

Students are divided into two rows. A rubbish bin is placed in front of each row at a distance of 5 m. Each student will collect from the school yard a discarded package or an empty milk box to throw in the trash. At the start command, students run to the trash cans, throw the trash in the trash, then run back, giving the relay to the next student. The team that finishes faster wins, throwing all the garbage in the trash.

"sticks" a tree

The goal:

- Educating the ecological attitude towards the environment;
- Strengthening positive tree care behaviors;

Teaching task: participation in actions of care and protection of the environment;

Rules of the game: students will "adopt" a tree and will have to take care of it;

Game elements: material handling, movement.

Materials needed: a tree, drawing pencil, paper, notebook, camera.

Game development:

When you go for a walk, invite the children to "stick" a tree (in the park or on the street). This gesture develops the connection between children and the environment. Explain that no one can actually have a tree in a public domain, but that man can "befriend" a tree and take care of it.

What responsibilities could someone who "owns" a tree have? First of all, he must know the tree very well. Therefore, with the help of pencil and paper, draw the tree in winter; or in autumn, gather the fallen leaves on the ground and press them, study the flowers and fruits, spring and summer.

When you go for a walk, each child must bring water in a bottle, with which he will water the tree. Older children can make a calendar of the tree, in which they can note the height, the period when it blooms, the smell that the flowers spread, the shape of the fruit, etc.

Finally, once or twice a year, take pictures of the child with the "adopted" tree.

Over time, the tree will become an important landmark for the child's botanical knowledge.

"on a trip to the forest"

Purpose:

- Assessing knowledge about environmental protection;
- Evaluation of some practical-household skills;
- Activating interest and pleasure for learning through play, development

Team spirit and competition;

- Formation and development of civilized behaviors;

Teaching task:

Rules of the game: on the way through the forest, the students will discover "traps - surprises" and will have to do what is required of them. - if the tasks have been completed, they will move further into the depths of the forest, until another clue. - the team whose members make the wrong answers, is penalized or will receive a supplement of "work", and the one whose members make a mistake know how to answer correctly will advance faster on the route, reaching the "forester's hut" first.

Game elements: competition, surprise situations, guessing, movement, applause, incentives.

Teaching material: books, polka dots, a living bag, paper, kinder egg packaging, natural bird's nest, food basket, a picture book about nature protection, blankets, cassette player, food waste bin, cutlery and crockery disposable, rewards.

Game development:

The first team will wear red polka dots on their chests, and the second team will wear green polka dots. The start is given and, searching, the children start towards the forest, on the winding path between the trees. They are invited to observe the vegetation of some trees, the shelters of some animals, an anthill, to pick popcorn, to listen to the murmur of a brook that crosses the forest, to save from drowning a small goose that fell into the water, to place it lightly on the grass. green and soft. The children then jump over a brook, notice how the "forest doctor" is doing his duty, and suddenly notice how a living thing hangs on the branch of an oak tree. In it are found some envelopes containing the tickets with certain tasks (questions to be answered):

Team 1: - how is the soil?

- How's the grass?
- How's the air?

Team 2: - how are the trees?

- How are the birds?
- How's the water in the creek?

After the teams answer the questions (we will take the story with us), we will record the answers, we will talk about animals and birds in the forest, what they feed on, what benefits they bring, some curiosities, then we will continue the route to the edge of the forest on the Danube. . Here in a nest of birds that fell, probably from a tall tree we discover through a lot of birds a lot of kinder eggs (packaging). Opening each egg, in turn, we find the questions:

Team 1: - why do plants die?

"What if it weren't for the forest?"

"Why isn't the forest allowed to be cleared?"

"Why do we have to keep this place clean?"

Team 2: - how is the water of the Danube compared to the brook?

- What are the causes? What do you think happens to fish?
- How is the bank of the Danube?
- What are the causes? What about plants and living things?

Forward the team that "did the best". As time goes on, it is proposed to run lightly one after the other to reach the clearing where some pleasant surprises await them. Not far away is the "forester's house", a wooden house with flowers at the windows. Once at this stop, the children discover in the middle of the

sunny meadow a large basket of twigs. Using the method of discovery by surprise, goodies will be taken out of the basket with which the children will feast. Discussions continue on the theme of "protecting nature!" To do this, they will gather their picnic table and deposit their food scraps (bags, plastic bottles, napkins and disposable tableware) in a nearby trash can, which reads, "Keep it clean!" . They are presented here with a previously prepared picture book, which represents different patterns of behavior. Browsing page by page, they will answer "yes" and "no" to the question: - how do you think it is correct? And how not? "

Team 1: - the image represents a little girl watering the flowers with a sprinkler;

- People who cut and deforest trees;
- A group of people setting up a canteen for birds in a tree;
- A group of children throwing plastic bottles on the water.

Team 2: - a veterinarian dressing a puppy's paw;

- A group of people planting trees and planting flowers;
- A citizen throwing paper down;
- A little girl who kills geese and tramples flowers.

The answers after which the points are totaled will be recorded. The winning team will receive the winning cards.

Something happens

Game development

During a walk, the game leader distributes to each team a sheet of paper on which are written the following questions:

You can show me:

"Something tall and straight?"

- Something bent?

"Something brilliant?"

- Something round?

"Something sharp?"

- Something green and yellow?

"Something man-made?"

"Something that can't find its place in nature?"

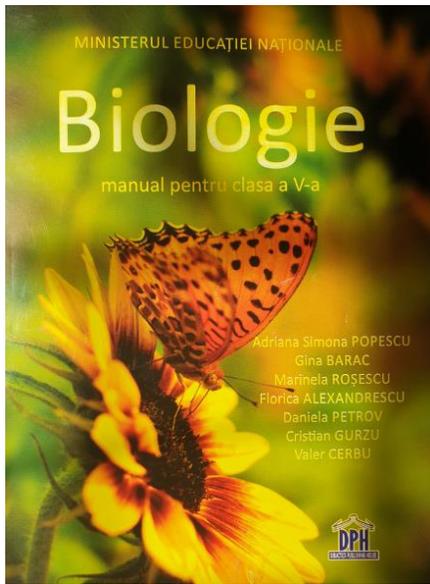
- Something important for the balance of nature?

The group stops for 5 minutes in a certain area and writes down the answers, which are then read aloud.

Elements of ecology in the gymnasium cycle

The elements of ecology is studied in romanian curriculum on biology discipline (except 7th):

5th grade - recognition of the consequences of human activities and their own behavior on the environment (visits are recommended, trips to promote natural beauty and to observe the effects of human behavior on them).



CUPRINS

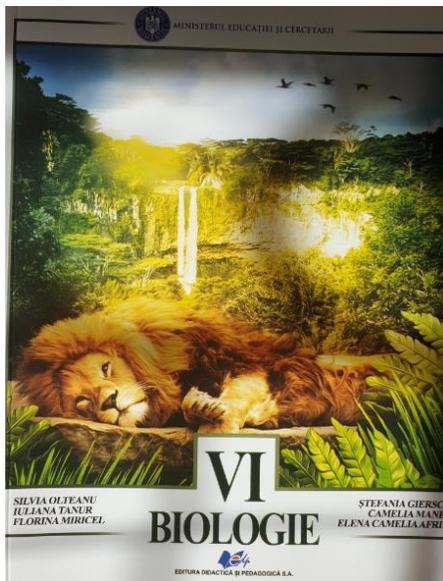
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On 6th grade – the objectives of biology curriculum is to identify the relationships between one's own behavior and health



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On 8th grade - the manifestation of a healthy lifestyle in a natural environment conducive to life.

Elements of ecology in the high school cycle

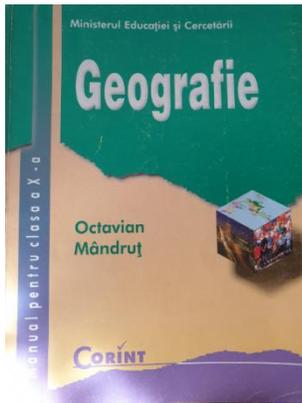
On 9th grade - transfer and integration of knowledge and working methods specific to biology in new contexts (for example, design of environmental protection and conservation activities).

On 10th grade the elements of ecology studied at biology is- circulation, excretion, germination (ecological imbalances).



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Ecological education options in romanian education- curriculum at the decision of the school

In addition to what they learn in class, students passionate about ecology have the opportunity to choose between the options "Create your environment" and "Ecological education and environmental protection", both being subjects in the curriculum at the decision of the school, at the national level.

According to the Education Law, the curriculum at the school's decision includes optional subjects offered at national level and optional subjects offered at the level of educational units.

"Create your environment!" is an optional subject offer for the curricular area "Mathematics and natural sciences", being designed for one hour per week and which is addressed to students from the 3rd to the 7th grade.

Optionally, depending on their age, children will learn to identify human interventions in the environment, solutions related to pollution in the area where they live and the relationship between environmental pollution and quality of life.

One of these curriculum at the decision of the school is Earth our treasure-

<p>Pământul e comoara noastră</p>  <p><i>Manual de educație ecologică</i></p>	<p>I. Cuprins</p> <p>I. CUPRINS _____ 2</p> <p>II. DRAGI PROFESORI! _____ 4</p> <p>INTRODUCERE _____ 5</p> <p>CE ESTE EDUCAȚIA DE MEDIU? _____ 6</p> <p>SUGERII PENTRU PROFESORI _____ 8</p> <p>MULTIMEDI _____ 9</p> <p>III. IMPACTE DE MEDIU _____ 10</p> <p>MEDIU - CE REPREZINTĂ PENTRU NOI, CE DEFINESTE ACEST TERMIN? _____ 11</p> <p>CELEBRE DE CUVINTE _____ 13</p> <p>CONȘTIINȚĂ (GĂTĂRI) _____ 14</p> <p>MULTIMEDI MEDIULUI _____ 17</p> <p>DIAGRAMA MARELUI „PĂȘTE” _____ 20</p> <p>IV. VALORILE NOASTRE _____ 22</p> <p>COMPORTAMENT DĂUNĂTOR _____ 23</p> <p>DEZERTURI DIMPNE MEDIU _____ 26</p> <p>CE AI FACU? _____ 28</p> <p>NOI CONȘTIINȚĂ ACEST ORAS _____ 32</p> <p>V. LUMEA DIN JURUL NOȘTRU _____ 34</p> <p>E NU NEUAI CASA NOASTRĂ... _____ 35</p> <p>ECOSISTEME DIN CĂMIN ȘI ȘCOLI _____ 39</p> <p>DACA AM TRĂI PE O ÎNSULĂ... _____ 41</p> <p>HABITATELE ACVATICE (ACVARIU INTER-OȘTECLA) _____ 44</p> <p>ECOSISTEMUL MAREI TROPICALE _____ 47</p> <p>CLADIREA UNUI MUNTU MARE _____ 49</p> <p>VI. SCHIMBAREA COMPORTAMENTULUI FAȚĂ DE MEDIU _____ 52</p> <p>PROIECT: SĂ FACEM ORDINE ȘI CURĂȚENIE! _____ 53</p> <p>POLUAREA AERULUI _____ 55</p> <p>FESTIVAL DE MEDIU PE TEMA RECICLĂRII MATERIALELOR _____ 57</p> <p>PRODUCEREA BĂUTURII _____ 59</p> <p>DEZERTUL: O PROBLEMĂ ACTUALĂ, PE CARE DESORI NU LEAM ÎN CONȘTIINȚĂ _____ 61</p> <p>VORBITE DESCHIȘ DESPRE RECICLARE! _____ 63</p> <p>VII. REGENERARE SAU NU? _____ 65</p> <p>TOTUL E IMPACTAT _____ 66</p> <p>DACA UN ARBOR E DOROVAT ÎN PADURE _____ 68</p> <p>CONȘTIINȚĂ ECOSISTEMULUI _____ 70</p>	<p>VIII. SPECII DIFERITE, REGIUNI DIFERITE, ÎMPĂRȚITE _____ 73</p> <p>PROBLEMELE MEDIULUI ÎN REGIUNEA POLARĂ _____ 74</p> <p>DE CE SUNT SPECIILE PERICLITATE? _____ 76</p> <p>ECOLOGIA _____ 81</p> <p>LEGENDA ȘI ADEVĂR DESPRE LIELECI _____ 83</p> <p>SUBTELĂȘERI _____ 86</p> <p>IX. PRINTE GENERALĂ ALUPTĂ MEDIULUI _____ 88</p> <p>PRIMEZIILE (DISCURELE) MEDIULUI _____ 89</p> <p>CĂTEVA ÎNTEBĂRI ȘI RĂSPUNȘURI PENTRU PROFESORI _____ 91</p> <p>X. SUGERII PENTRU PROFESORI _____ 96</p> <p>CĂTEVA SUGERII CARE POT FI DE FOLOS PE ÎNTREAG ANUL _____ 97</p> <p>VĂNĂTOARE DE MICROZOARE: UN JOU PE CARE ELEVII ÎL VOR JUCA ÎN TIMP CE STERDĂZĂ NATURA _____ 99</p> <p>CUM SĂ ORGANIZĂM O ACȚIUNE DE CURĂȚENIE PROPRIE? _____ 100</p> <p>ACTIVITĂȚI ALTERNATIVE DE PROTECȚIA MEDIULUI _____ 102</p> <p>DICTIONAR DE CUVINTE _____ 105</p> <p>MATERIALE RECICLARE _____ 107</p> <p>SCHEMĂ BIOLOGICĂ _____ 108</p> <p>AGREȘTE ÎNTERNET _____ 109</p> <p>MEDIU ȘI CURĂȚENIE CĂTRE PARCURI _____ 110</p> <p>INȘEA PENTRU LECTURĂ _____ 111</p> <p>MARILE ÎN VĂLTOARE A LECTURII PROIECTULUI „PĂMÂNTUL E COMOARA NOASTRĂ” _____ 112</p> <p>MULTIMEDI _____ 112</p> <p>ERORI! BOOKMARK NOT DEFINED.</p>
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The curriculum at the decision of the school represents a first step of the decentralization process of the education system, through the right conferred to the school unit to decide on a segment of the National Curriculum.

Freedom of decision at school level is the chance to adapt to an open system, with multiple, flexible options, depending on students' expectations and priorities of the education system and allows the creation of its own ethos.

Integrated to the current command, to make all actors in the field of education responsible for environmental issues, the optional "Ecological education and environmental protection" has an interdisciplinary character, addressing a generous educational segment, from preschool to high school.

Objectives

1. Knowledge of the environment by stimulating curiosity to investigate the surrounding reality.
2. Formation and exercise of practical skills in order to achieve functional objects, practical-utilitarian, from recyclable or reusable materials.
3. Forming a positive attitude towards nature by carrying out ecological education activities.
4. Designed for one hour per week, it is addressed to students in preschool, primary and secondary education, the teacher having the possibility to organize the contents in learning units, in accordance with the local specifics and age and individual characteristics of the students.

In addition, they will be able to collect information on environmental pollution, make interpretations of scenarios created by students, make a "green" newspaper, a photo album, investigations, opinion polls, organize actions to green some spaces, to watch movies about environmental degradation, to debate some cases taken from the local press, to write a guide to ecological behavior.

Through interactive strategies, students are put in a position to observe, analyze, investigate, environmental phenomena and processes, practicing intellectual work skills, while forming a responsible behavior, involved in environmental relations", is the description of the optional " Ecological and environmental education ”.

As a conclusion we can mention that Teachers should be concerned about the imperative requirement of updating knowledge, skills and teaching techniques in the field of environmental education. Their professional activity should be structured in such a way as to provide them with the opportunity to increase efficiency in the profession of educator, as well as to benefit from the experience of periods of activity from different spheres of cultural, social and economic life. Such opportunities are: ecology circles organized by various ecological foundations, summer camps, study leave, etc (Marinescu, 2013). Such formulations, adapted to requirements, should be extended.

In order to achieve effective ecological education, team work is extremely effective at all levels of schooling, given the aim of improving the quality of ecological education offered to students and further adapting the teaching-learning process to depending on the specifics of classes or groups of pupils. As a way of achieving ecological education, we mention: instructive-educational activities in the kindergarten, lessons, courses and seminars, laboratory works, student research practice, excursions, symposium debates, round tables, international meetings, conferences, seminars, ecological education projects .

Bibliography

1. Abrudan Ioan, Bulgărean Sanda, Dehelean Claudia, Onaci Mariana, "Education for the environment", Silvania Publishing House, Zalău, 2005.
2. Cosmovici, Andrei, Cozma, Teodor - "Psychopedagogy", Iași, Ed. Spiru Haret, 1995.
3. Cuciinic, Constanța - „, Nature - my friend ”, Ed. Aramis, 2003.
4. Dilă, S., Crăciun, V., 2002 - „,The Voice of Nature”. Practical guide of environmental education for preschool education, Tulcea. Hac, P.A., 2010 - Ecological education. Environmental educator's guide.
5. Gemini Nicoleta Adriana, Dima Maria, Zainea Dana, "Ecological education at preschool age",
6. Marinescu, M., (2013). *New Education in the Society of Knowledge*. București: Prouniversitaria Press.
7. Mohan, Gheorghe, Ardelean, A., - "Ecology and environmental protection", Bucharest, "Scaiul" Publishing House, 1993.
8. Pârnu Constantin, "General Ecology", Technical Publishing House, Bucharest, 2001, pages 233-240;
9. Opris, Tudor - Little Encyclopedia for Youth ”, Bucharest, Forum Publishing House, 1998.
10. Toth Maria (coord.), "Participatory methods in ecological education", Studium Publishing House, Cluj Napoca, 2001.
- 11* * * The program of instructive-educational activities in the kindergarten, approved by O.M. no. 4481/2000.
- 12* * * Supplement to Preschool Education Magazine, C.N.I. Coresi, Bucharest, 2008, pages 15-18;
- 13* * * "Education Tribune", February 27 - March 5, 2006, page 1.
14. * * * Societatea Carpatină Transilvană Satu Mare, (2010). *Ecological Education – Research Report*. Retrieved from: http://eke.ro/document/Raport%20de%20cercetare_EDUCATIE%20ECOLOGICA.pdf .