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## PRESCHOOLERS' ECOLOGICAL APPROPRIATE BEHAVIOR FORMATION

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**Annotation.** The article reveals the essence of ecological appropriate behavior as an ecological understanding by senior preschoolers of the importance of appropriate behavior in the environment in order to maintain ecological balance and harmony with nature; the analysis of characteristic manifestations of this behavior in children of senior preschool age is carried out.

Ecologically appropriate behavior of senior preschoolers consists of a set of interdependent structural and semantic components: emotional and value (attitude to nature as a value and awareness of unity with the natural world); information-cognitive (ecologically coordinated activity in nature on the basis of ecological and natural science knowledge, the main among which are ideas about connections and dependencies in nature); activity-effective (volitional activity in the natural environment, self-limitation of one's own desires and motivated behavior to nature). Experimental analysis of the representation of the components of ecological appropriate behavior showed the dynamics of increasing the levels of formation of ecological and appropriate behavior due to the renewal of the ecological development environment of preschool education and the effectiveness of pedagogical support as a mechanism of long-term tripartite subject-subject interaction, which is characterized by the predominant use of interactive methods, techniques and forms, the implementation of which reflects qualitative changes in the emotional-motivational, activity-behavioral and cognitive spheres, etc.

The most effective method in the study proved out to be the Ecological projecting method as an integrated method of subject-and-subject interaction organizing of "teacher-child-parent" relationship for achieving the activity goal and children's ability to admire the nature beauty formation, the ability to notice environmental pollution, mastering of available skills to keep the environmental purity, compliance of the nature appropriate usage rules, awareness of the need nature saving and condemnation of the negative actions of other children and adults who harm the natural environment.

**Key words:** ecology, expediency, behavior, environmentally sound behavior, senior preschool age, pedagogical support, work in nature.

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## ФОРМУВАННЯ ЕКОЛОГІЧНО ДОЦІЛЬНОЇ ПОВЕДІНКИ ДОШКІЛЬНИКІВ

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**Анотація.** У статті розкрито сутність еколого доцільної поведінки як екологічне розуміння дітьми старшого дошкільного віку важливості доречного поводження себе у довкіллі за для підтримання екобалансу і гармонії з природою; здійснено аналіз характерних проявів цієї поведінки у дітей старшого дошкільного віку.

Еколого доцільна поведінка старших дошкільників складається із сукупності взаємозалежних структурно-змістових компонентів: емоційно-ціннісного (ставлення до природи як до цінності та усвідомлення єдності з природним світом); інформаційно-пізнавального (екологічно узгоджена діяльність в природі на основі еколого-природознавчих знань, основними серед яких є уявлення про зв'язки й залежності в природі); діяльнісно-дієвого (вольової діяльності у природному оточенні, самообмеження власних бажань та змотивована поведінка до природи).

Експериментальний аналіз представленості компонентів еколого доцільної поведінки засвідчив динаміку вивіщення її рівнів, що зумовлено оновленням еколого розвивальним середовищем закладу дошкільної освіти та дієвістю педагогічного супроводу як механізму тривалої трьохсторонньої суб`єкт-суб`єктної взаємодії «педагог-діти-батьки», для якої характерно переважне використання інтерактивних методів (екологічний проект, що включає комплекс різних видів практичної діяльності дітей, зокрема, трудової, дослідницької та ігрової, метод «заняття-подорожі» під час, якого діти заплющують очі і уявно потрапляють у потрібне місце; правила поведінки в природі зображуються у вигляді екологічних знаків, метод «картинна галерея», ознайомлення дітей з явищами природи за допомогою картин: «Осінь над Дніпром» С. Шишко; «Весна в Україні» С. Васильківський; «Вітер в березні» М. Бурачек та прийоми («навушники», прослуховування у навушниках звуків моря, лісу, явищ природи; «бінокль», споглядання об`єктів природи на задньому плані); праця в природі з використанням мультимедійних

засобів; ланцюг логічних запитань допомагає знайти вирішення тієї чи іншої проблеми або з'ясувати її причини; схеми-моделі з їх допомогою складають описові розповіді, дотримуючись послідовності та параметрів, закладених у схемах: колір, форма, величина, матеріал, частини, де зустрічається в природі); прийом екологічної емпатії та екологічної рефлексії спонукає до самоаналізу вчинку у природі та форм, реалізація яких відображає якісні зміни в емоційно-мотиваційній, діяльнісно-поведінковій та пізнавальній сферах тощо.

**Ключові слова:** екологія, доцільність, поведінка, еколого доцільна поведінка, старший дошкільний вік, педагогічний супровід, праця в природі.

**Relevance of research.** The modern planet Earth is in a state of ecological destabilization, caused by the anthropocentric consciousness of man, who puts his consumer needs first among other needs. The foundations of consciousness, ecological culture, the attitude of the individual to the world of nature are laid in preschool childhood, which confirms the importance of using this sensitive period for the ecological education of the individual. In turn, ecological education is a systematic pedagogical activity aimed at the development of ecological culture, the prerequisite for the formation of which is: ecological knowledge, cognitive moral and ethical feelings and experiences, ecologically appropriate behavior, and the result – ecologically educated personality with a nature-centered approach to interaction with nature. With this in mind, it is important to form in children of older preschool age ecologically appropriate behavior that will allow individuals to responsibly solve life situations, develop socio-economic relations, but at the same time be able to preserve the natural environment.

**Analysis of recent research and publications.** The problem of the formation of ecological expedient behavior in older preschool children in the scientific and pedagogical literature has been studied by such modern scientists as G. Belenkaya, V. Boreiko, V. Verbitsky, N. Lysenko, V. Marshitska, C. Bad, O. Polovina, N. Pustovit, G. Tarasenko and others. In their writings, teachers made attempts, on the one hand, to generalize the concept of «environmentally appropriate behavior», and on the other to concretize it [5; 6; 7]. The psychological foundations for the formation of ecologically appropriate behavior in older preschool children are the ideas of L. Vygotsky, V. Davydov, V. Zaporozhets, M. Poddyakov, C. Rubinstein, etc. emotional perception of them [18].

The leading directions that shape the child's ecological worldview are declared in the national regulatory documents: Laws of Ukraine «On Education» (new edition) [22], «On Preschool Education» [16], Basic Component of Preschool Education [3], etc.

Ukrainian topical conceptual programs for preschool education («Confident start», «Child», «Child in preschool years», «Ukrainian preschool», «Sunflower», «I am in the World», etc.) testify that in the sense of familiarizing children with by nature, the main place is occupied by the ecological component, which is closely related to moral education. The content of ecological education is characterized by the fact that in a six-year-old child it is necessary to form a system of knowledge about the objects and phenomena of the nature of the planet Earth, the connections and dependencies between them and the role of labor in nature. Environmental knowledge should become the means that enter into behavior and practice and, accordingly, motivate them [19].

So, taking into account the above, we note that the problem of the formation of ecologically appropriate behavior in older preschool children is relevant and requires experimental research.

**The aim of the article** is to reveal the essence of ecologically appropriate behavior as an ecological understanding by older preschool children of the importance of appro-

priate behavior in the environment to maintain ecological balance and harmony with nature and experimental analysis of the dynamics of ecologically appropriate behavior of older preschool children.

**Research methodology.** Within the theoretical research of the problem, analysis and synthesis were used in order to identify the essence of the studied phenomenon; «Method of terminological analysis related to determining the categorical status of ecological appropriate behavior in the system of pedagogical definitions; abstraction, idealization, formalization and generalization – to systematize and formulate conclusions, identify areas for further study of the problem». Regarding the empirical part of the study, we used methods: I. °Goyan «Study of subordination of motives» to analyze the behavior of a six-year-old child, the quality of his work and the nature of subordination of motives, an integrated version of the method conditional situation of joint activities with each other (developed by H. °Pustovit) and a specially practical-experimental situation «Let's make a picture (puzzles)» to determine the interpersonal partnership of older preschool children during joint activities (O. Reipolska) and methods: observation, comparison, analysis of results of activities under working time in nature.

To identify significant differences between the compared indicators, statistical methods of mathematical processing of the collected experimental data, their analysis for implementation, generalization and systematization of research materials and identification of the effectiveness of the proposed research program were used.

**Research results.** Consideration of the peculiarities of the studied phenomenon of ecological expedient behavior of older preschool children cannot be carried out without the essential content of this concept in the theory of preschool education, which involves clarifying the basic integrated definitions: «ecology», «expediency», «behavior».

Among the many interpretations in psychological and pedagogical science and reference books, we tend to define that:

- ecology is a branch of biology that studies the patterns of relationships between organisms and the environment, as well as the organization and functioning of superorganized systems [12, p. 111];

- expediency – an objective characteristic of systems that achieve a predetermined goal, ie movement «to the goal», which is associated with goal setting – conscious active activity of the child to achieve a useful result that determines the integrity and direction of individual behavior [21]; formation, orientation and correction of behavior of preschoolers on the requirements and according to the demands of balanced development of society;

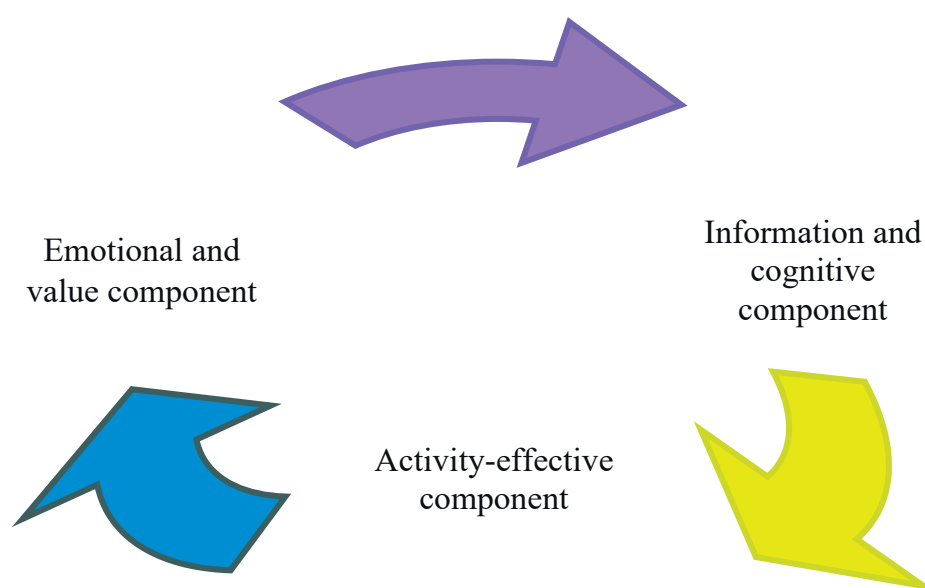
- behavior – the external manifestation of activities, the system of actions of the biological individual, aimed at maintaining its existence, which is manifested in a certain sequence of actions, purposeful actions; higher level of interaction of the whole organism with the environment, which is carried out as a unity of mental – motivating, regulatory and reflective factors that bring or move the body away from certain objects, as well as transform them [17, p. 104]; observance by the child of the generally accepted rules of communication, interaction with a natural environment, and performance by it of certain moral and ethical forms of actions; a special form of activity, which becomes precisely such when the motivation of actions from the subject plan passes into the plan of personal possessions [23].

This confirms that behavior is interrelated with activity, because the «unit» of behavior is the act, and the «unit» of activity in general – the action. In addition, environmental activity (work in nature) is seen as a higher manifestation of behavior, where

there is «energetic communication» (verbal and nonverbal) of the child with nature and other children (adults) through the management of interpersonal interaction with others, which is the main and effective force. in ensuring the further spiritual progress of Ukrainian society [25]. The success of such behavior will depend on knowledge, skills, motivation and emotional sphere.

The above analysis revealed the essence of the phenomenon of ecological appropriate behavior – as a component of environmental education, an active process of forming a system of knowledge and ideas about the relationship of all natural factors and their interdependence in harmony with environmental moral canons.

In turn, we consider ecologically appropriate behavior as an ecological understanding by older preschool children of the importance of appropriate behavior in the environment to maintain ecological balance and harmony with nature, which includes the structural components presented in Fig. 1.



*Fig. 1. Structural componets of environmentally appropriate behavior*

In fig. 1. The structural components of ecologically appropriate behavior are determined as:

- emotional-value component (attitude to nature as a value and awareness of unity with the natural world);
- informational and cognitive component (ecologically coordinated activity in nature based on ecological and natural knowledge, the main of which are ideas about communication and dependence in nature);
- activity-effective component (volitional activity in a natural environment, self-limitation of one's own desires and motivated behavior towards nature) [22].

The analysis of psychological and pedagogical literature gave grounds to assert that ecologically purposeful behavior has a multidirectional manifestation in different age periods. In particular, in an older preschool child, it is characterized by such behavior, which, unlike a pet of younger and middle preschool age, is more and more focused on the state of a living being and, to a lesser extent, on the satisfaction of their own interests and needs [5]. That is, an older preschooler is already able to behave constructively

in nature, without violating the rules of behavior, for personal pleasure and approval of her actions by adults.

This indicates the importance of conducting an experimental study of the problem of the formation of ecologically appropriate behavior in older preschool children.

The study involved 40 children of the sixth year of life: 20 children from the experimental group (EG) and 20 respondents from the control group (CG). The research was carried out in the educational complex «School of the I degree, preschool educational institution «Care» of the Obolonsky district, Kiev from September 01 to November 31, 2019.

The experimental study was aimed at the implementation of the following tasks: to determine the levels of formation of ecological expedient behavior in older preschool children, to implement pedagogical support of ecological expedient behavior in preschool children, and to analyze the research results.

The research program included three stages of the experiment: ascertaining, forming and control (see Table 1).

Table 1

**The program of pedagogical experimental research on the problem of the formation of ecologic appropriate behavior of senior preschool children**

№ з/п	Stages of experimental research	<b>The aim:</b> to develop the program of pedagogical experimental research on a problem of formation of ecologically expedient behavior at children of senior preschool age.
<b>Tasks of stages:</b>		
1.	<b>Statement stage of the experiment</b>	<ul style="list-style-type: none"> <li>- Development of criteria and indicators for the formation of environmentally sound behavior in older preschool children. Determining the levels of formation of ecologically appropriate behavior in older preschool children.</li> <li>- Creating a system for diagnosing the formation of environmentally sound behavior in older preschool children.</li> <li>- Determining the composition of the sample of respondents of experimental and control groups of older preschool children.</li> <li>- Identification of initial levels of formation of elements of ecological expedient behavior in children of senior preschool.</li> </ul>
2.	<b>The formative stage of the experiment</b>	Implementation of pedagogical support for senior preschool children environmentally appropriate behavior formation while working in nature.
3.	<b>Control stage of the experiment</b>	Checking the effectiveness, analysis and interpretation of the results of an experimental study on the formation of environmentally sound behavior in older preschool children.

The theoretical basis for the development of criteria for diagnosing the levels of ecologically appropriate behavior of older preschool children were the main components, such as: emotional and motivational, because emotions are what motivates preschoolers to activity; cognitive, as the level of knowledge and ideas of children about nature is checked; activity-behavioral, because we study the manifestations of the behavior of students during work in nature. Schematic representation of criteria and indicators is given in table. 2.

Table 2

**Criteria and indicators of senior preschool children environmentally appropriate behavior formation while working in nature**

<b>Criterion</b>	<b>Indicators</b>
<b>Emotional and motivational</b>	Emotional and motivational attitude to teamwork. Emotional perception of peers and the desire to communicate with them. The child's assessment of himself, his qualities, capabilities. Assessment of other children during practical activities.
<b>Cognitive</b>	Representation of the natural environment (air, water, soil, plants, animals, people, sun, moon); their significance for human activity, for themselves. Perception of the value of nature. Self-awareness is a part of nature. Knowledge of the dependence of objects and phenomena of nature; their significance for man. Presence of interest in environmental actions.
<b>Activity-behavioral</b>	Manifestation of activity and intensity during work in nature. Ability to coordinate actions, their evaluation. Application of the cooperation model. Ability to interact in a group during activities, implement a common plan and evaluate the results of work.

Under the emotional-motivational criterion of the formation of ecological appropriate behavior we understand the manifestations of the emotional and motivational sphere. Its indicators: verbal assessment of qualities and opportunities during natural activities; manifestation of positive emotions and motivating attitude to teamwork and peers.

The cognitive criterion is characterized by children's awareness of objects and phenomena of nature, which are expressed in their stories and questions. Its indicators: worldviews about the environment, its significance for man; self-awareness of the part of nature that needs to be protected.

Activity-behavioral criterion reveals the moral and ethical actions of the child at work on the basis of beliefs «do no harm», «worry», «help», «cooperate», «implement the plan», «evaluate the result». Indicators of activity-behavioral criterion: activity and intensity during work; ability to coordinate actions and establish contact with others for cooperation; maintenance during all activity of the joint plan; ability to evaluate the result of work – «good», «beautiful».

The generalization of criteria and indicators allowed to isolate the levels of environmentally sound behavior of older preschool children (high, medium and low), which are shown in table. 3.

Taking into account the analysis of diagnostic methods available in the scientific literature to study the formation of ecologically appropriate behavior of older preschool children at the ascertaining stage were used diagnostic methods: «Study of subordination of motives» to analyze the behavior of 6-year-old child, conditional situation of joint activity «November» [22], purpose: to reveal children's ideas about the rules and methods of cooperation, specially selected practical experimental situation of joint activity «Let's make a picture (puzzles)», purpose: to determine how interpersonal partnership of older preschool children time of activity [24, p. 319] and methods: observation, measurement, comparison, analysis of results of activity during work in nature.

Table 3

**Levels of ecologically appropriate behavior of older preschool children**

Levels	Indicators
High	<p>Positively evaluates himself, his qualities and capabilities, as well as all partners in communication and activities. Makes all possible efforts to perform the activity and gets pleasure from it. The child positively emotionally perceives all partners in communication and activities.</p> <p>The idea of the natural environment of the planet Earth and the Universe as a whole organism in which air, water, soil, plants, animals, people, the Sun, the Moon, etc. interact. Realizes the importance of natural resources for human activity, for themselves. Considers nature as a value. Can distinguish between positive and negative effects of human activities on the state of nature. Able to arbitrarily regulate their own behavior in nature. Realizes himself part of the world of nature. Knows about the dependence of one's own health, mood, activity on the state of nature, its diversity and beauty. Shows interest, desire and feasible skills in environmental actions. Makes efforts to preserve, care for and protect the natural environment.</p> <p>Shows activity and initiative while working in nature. Has knowledge of the rules and methods of coordination in the process of joint activities with peers in the group. Adequate assessment of the situation of cooperation, coordination of efforts and application of the appropriate model of cooperation. Coordinates actions for realization of the joint plan and receives pleasure from result of activity</p>
Average	<p>Not always adequate assessment of yourself, your capabilities, situational assessment of partners. He does not always show a positive and emotional attitude to work. Shows uncoordinated efforts to perform activities. Positive-emotional perception of only a limited number of communication and activity partners is inherent.</p> <p>Selective ideas about the natural environment of the planet Earth and the Universe, in which its resources interact. Does not perceive nature as a value, but regulates its own behavior in nature. Only in the direction of an adult realizes himself part of the world of nature. Shows episodic interest, desire and feasible skills in environmental actions. Makes efforts to preserve the natural environment under the encouragement of adults.</p> <p>Activity and initiative in group activities are sporadic, often from the position of another child or adult. It does not always show an adequate assessment of the situation of cooperation, inconsistency of efforts. Applies an inappropriate model of cooperation. In group activities, partially interacts to implement a common plan. The child evaluates the result on the individual contribution of each to the work</p>
Low	<p>The child does not know how to evaluate themselves, their qualities and capabilities. Lack of evaluation of communication and activity partners. Emotionally negative attitude to teamwork. Low emotional response. Weak emotional development. Aesthetic identity. It is characterized by emotionally negative perception of communication and activity partners.</p> <p>Has a basic understanding of the natural environment and its resources. Determines the importance of the natural environment and resources for human activities, for themselves only through additional incentives. Perception of nature is unstable. Does not realize himself part of nature. He does not know about the dependence of his own health, mood, activity on the state of nature, its diversity and beauty. Has no interest in environmental actions, so does not make efforts to preserve and protect the natural environment.</p>



Continuation table 3

	<p>The child does not show activity and initiative, but participates only on the initiative of others. Coordination of actions does not occur due to ignorance of the rules and methods of coordination of efforts in the process of joint activities. Failure to assess situations of cooperation, yourself, your qualities and capabilities. Lack of evaluation of partners. Models of cooperation are not considered appropriate. There is no idea about the process of joint activities and the ability to establish constructive contacts with partners. There may be no contact with partners. There is no ability to interact in group activities. The joint plan and the result of joint activity are not realized</p>
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As a result of diagnosing according to the proposed methods and techniques, it was found that older preschool children in the experimental group are mostly at a medium (48%) and low level (37%) of environmentally sound behavior. And in the control group – mostly at the average level (62%) of environmentally sound behavior.

Given the above result, the formative stage of the experimental study aimed at the implementation of pedagogical support – a set of objective possibilities of content, forms, methods, pedagogical techniques and material and spatial environment, which are aimed at forming environmentally sound behavior in older children preschool age.

The structural components of pedagogical support of formation of ecologically expedient behavior at children of senior preschool age are defined, such as:

- renewal of the ecological development environment of the preschool institution, which combines the natural, subject, social and environment of the inner «I». Due to this combination of environments, the experience of continuous, pedagogically determined contact of the child with nature, with the educator, with other children during their joint activities is formed;

- methods of forming environmentally sound behavior in older preschool children, which included effective organization of work in nature, focused on global, regional and local issues, has a sense of social responsibility for the state of nature, the desire to act for its preservation.

- methodical work as an interactive educational activity with teachers on ecological education of preschool children.

- pedagogical interaction of the preschool institution with parents for the formation of environmentally sound behavior in older preschoolers through the active involvement of the family in the educational process and the creation of unity of requirements on both sides.

Ecological development environment affects not only the life of preschoolers, but also their behavior, so we proposed the following ideas that can be used in preschool education: to build an extraordinary eco-building with non-standard materials (see Table 4) and natural visual-sound room; on the territory – to create a landscape design that will combine natural (plants, animals, stones, water, sand, pebbles, wood) and artificial materials (flower bed, alpine and ordinary garden, vegetable garden, «recreation area», meteorological site).

The study outlines the concept of eco-building as a multifaceted maximally saturated green structure, which reduces the level of consumption of energy and material resources by saving them, growing greenery, installation of photovoltaic modules [9].

An unusual solution would be to create natural visual and sound rooms in a preschool, which will be dedicated to any natural theme. Here, children will create an atmosphere of nature with the help of projectors, laptops and speakers. For example, showing in a quick version of how bread is created, starting with planting grain, and ending with baking bread. In such an environment, students will feel that they are in the conditions shown.

Table 4

**Non-standard materials and equipment  
for a corner of nature in a preschool institution**

<b>Non-standard materials</b>	<b>Registration of non-standard materials</b>
Local lore and local lore corners	Not harmful Ukrainian and exotic plants. Folklore and author's works (tales about plants, tales about animals); coat of arms and flag of a city or village; photos of national symbols-plants (viburnum, willow, oak, poplar). Multimedia educational and game manuals of the state, city, or village
Herbarium of plants, which we collect together with children during work, walks and excursions. Ekibana and various products from a natural material	Collected flowers are placed in books. When the flowers are dry, then put them in a transparent bag and attach it to the wall
Characteristics of living objects of the corner and recommendations for their care	Smart cards
Collections of soils and mineral rocks	We place soil layers in transparent strong plastic. The stones are laid out in small boxes with the names of mineral rocks
Images of seasons and natural phenomena	Illustrations, paintings in A3 format
Rules of interaction with plants and animals	Illustrations-schemes, which show: balanced behavior while working in nature; appropriate interaction with plants and animals
Ecological games, natural science literature, didactic manuals	Collection of ecological games. Game experimental zones, where there is natural material for games, experiments, didactic, board games about the environment [20, p. 90]
Large thematic walls-paintings on natural themes (for example, on the theme «Natural areas of Ukraine: flora and fauna» – «Mixed forests», «Forest-steppe», «Steppe», «Carpathians», «Crimean mountains»);	Place the picture walls on the wall or on the frame
Reduced models of natural objects	We place, according to conditions of placement of subjects in group (for example, on a subject: «Space» – the rocket, the planets made by papier-mache technique; the Sun which can be suspended on threads to a ceiling)
Animated pictures of nature (for example, a waterfall)	На стіну прикріплюємо картину, недалеко біля розетки.
Digital music photo frames	Through the digital music photo frames you can shoot the whole process
Plastic jars with stones and shells in the water	The use of such plastic cans during conversations with elements of relaxation

In a natural visual and sound room, or cinema room, images from projectors located in the center of the room will be projected onto all multimedia walls. The speakers located on each wall will create an even greater atmosphere of reality.

On such a multimedia wall, children will be able to draw or write with the help of special colored pens. For example, after planting vegetable seeds, the educator asks the children to imagine and draw the fruits that will grow from the seeds. Images of drawings will be stored in a laptop, in a special folder, which the educator can then show to parents at parent meetings.

An essential object of nature on the territory of a preschool institution will be a flower bed – the most common type of flower decoration on the site. It can be flat or raised surface by 10-15 cm. This position allows you to inspect it from different angles. The proposed location is advantageous for work. No more than 2-3 types of flowers should be planted in the flowerbed, which combine well in shape, height and color. In the center are tall evergreen plants that are planted loosely, loosely, scattered, and on the edges – low flowers, which are more densely arranged. It is best to plant compact short annuals (sage, alyssum, etc.) and biennials (forget-me-nots or viola, etc.). However, you can plant perennials (aquilegia, anemone, arabis, etc.). The flowers are selected so that the end of flowering of one species or variety coincides with the beginning of flowering of another.

An alpine garden (rock garden) is a botanical garden where plants located high in the mountains will be grown.

In addition, in a regular garden, we offer to plant varieties of fruit trees and shrubs so that pets can observe, care for and participate in the harvest.

On the perimeter of the territory of the preschool institution to plant trees, lawns, bushes, bushes. All plants are placed aesthetically, with respect to colors and variety. Moreover, landscaping should be at least 20 m<sup>2</sup> in one place and a width of 3 m.

A profitable solution would be to create small gardens (2 m×5 m), which are limited by a path. In each garden in the spring to plant vegetables with children and put signs with the name of the vegetables they planted. Take care of the plants throughout the year and harvest in the fall.

An important «feature» will be a «place of rest» – a wooden gazebo, which will be wicker chairs, where you can relax after work, drink water or juice; to conduct introductory and concluding conversations with children about work in nature.

It is very good to place a meteorological site on the territory, which will acquaint children with the basic standard meteorological devices (sundial, weather vane, thermometer; barometer, rain gauge), with observation techniques and methods of processing the results. It will create conditions for conducting observations of weather, seasonal natural phenomena during work in nature, as well as study the microclimate. The results of observations are recorded by educators together with children in the diary of observations.

Thus, the developmental eco-space, favorable for the development of ecologically appropriate behavior in the senior preschooler, where he personally determines his priorities, choices, preferences, interests, self-expresses ways and means of various activities (including natural). The architecture should take into account the climatic features of the region, flexibility, mobility, spatial variability, functional versatility, age differentiation, regulated autonomy of the planning structure of the preschool institution.

Formation of ecologically appropriate behavior in older preschool children was carried out by means of work in nature, during which methods were used (ecological project, method «classes-travel», ecological action, method of scheme-model, method «picture gallery») and techniques («headphones», A chain of logical questions, reception of ecological empathy, reception of «binoculars» reception of ecological reflection, reception of the scheme-model).

The analysis of the works of scientists gave grounds to reveal the definition of the concepts of interactive methods and techniques that can be used during activities in the environment:

- the method of the ecological project (is complex, ie may include elements of different types of practical activities of children, in particular, labor, research and play);
- the method of «travel» (children close their eyes, the educator says magic words, and the child's imagination gets to the right place; the rules of behavior in nature are depicted in the form of ecological signs) [14];
- the method of «art gallery» (acquaintance of children with the phenomena of nature with the help of paintings, for example, with the following: «Autumn over the Dnieper» (S. Shyshko); «Spring in Ukraine» (S. Vasylykivsky); «Wind in March» Burachek).
- reception of «headphones» (listening in the headphones to the sounds of the sea, forest, natural phenomena) [14];
- receiving «binoculars» (to see objects in the background, or those that are completely absent) [14];
- work in an integrated form using a multimedia projector on which you can show video encyclopedias about nature, watch cartoons and various videos on environmental issues on the Internet service YouTube (for example, cartoons «About the ecological cow», «Save the forest», «Magic Land») video on the structure of water, precipitation, etc. [14];
- a chain of logical questions (helps to find a solution to a problem or find out its causes) [14];
- schemes-models (with their help make descriptive stories, adhering to the sequence and parameters laid down in the schemes: color, shape, size, material, parts where it occurs in nature) [14];
- reception of ecological empathy [14] (to show empathy to pets they are asked questions during work, for example: «What does the ground covered with a thick layer of snow feel?», «Look at the behavior of a hamster, what does he feel now?»);
- reception of ecological reflection [14] (encourages self-analysis of the act in nature, for example, during the care of a guinea pig the child mocked the animal by pushing it with a stick, then the educator gathers all the children and asks: «What does a guinea pig feel when it is pushed?»).

The most effective method was the ecological project as an integrated method of organizing subject-subject interaction «teacher-child» to achieve the goal of activity. A number of such short-term and long-term ecological projects were conducted with older preschool children, the themes of which are: «Know, love, take care», «We take care of plants and animals», «Clean yard – clean environment», «Let's help birds», «corner of nature», etc.

In particular, the ecological project «Enchanting corner of nature», which lasted one day will be conducted in stages: cognitive-emotional (announcement of the topic, goal setting («friendship» with a corner of nature), activity planning, drawing pictures to plan points, observation, watching videos about beauty of nature, conversation); cognitive (environmental games, experiments, care for plants and animals, planting flowers); creative and productive («self-representation» of phenomena and objects of nature, composing a fairy tale about nature, game-dramatization).

Using the method of ecological project allowed to diversify, expand, integrate the lives of children, taught to answer the question: What? As? Who? Where? Why? The ecological project also contributed to: the formation of children's ability to admire the beauty of nature; ability to notice pollution of the natural environment; mastering the

available skills to promote its cleanliness, compliance with the rules of nature management; awareness of the need to preserve nature and condemn the negative actions of other children that harm the environment.

Methodical work with educators on senior preschool children environmentally appropriate behavior formation in nature took place in the form of training «Alternative corner of nature», which aimed to use the sounds of nature, their own feelings and ideas to improve or «awaken» environmental creativity and environmentally sound behavior of teachers.

The plan-prospectus of the training «Alternative corner of nature» included: introductory conversation, musical relaxation – sounds of nature, drawing of listened musical compositions, creation of advertising of rules of behavior of preschoolers in nature, drawing up of a technique of acquaintance of children with rules of behavior while working in nature. about nature, demonstration of slide-presentation of methodically constructive models of ecological developing environment, creation of a story about the importance of ecological expedient behavior, showing a video sample of the image of the future ideal kindergarten, game «Crocodile», exercise «Microphone».

Pedagogical interaction of the educational complex of school-kindergarten of the I degree «Care» with parents on this problem was directed on: improvement of knowledge on ecological education and ecologically expedient behavior; raising environmental culture. Based on this, an environmental campaign «Let's make the environment clean» was organized, which contributed to even closer cooperation between the educational institution, parents and children.

The structure of the action «Let's make the environment clean» included: an introductory call of the educator to the activity: «let's make our yard cleaner!», Activity planning, preparation of all necessary materials for work, making feeders and feeding birds, planting flowers leaves, painting of artificial materials, harvesting in the garden and in the garden, picnic.

Thus, it is conceptually important that pedagogical support reflects a difficult mechanism aimed at the formation of environmentally appropriate behavior in older preschool children through the focus of teachers and parents on communication with nature; on the ability to admire the beauty of nature; on the ability to notice environmental pollution; on the promotion of purity in nature; on compliance with the rules of nature management; on the awareness of the need to preserve nature.

In our opinion, the above pedagogical support, fully at the control stage of the study (carried out with methods similar to the ascertaining stage) showed improved quantitative indicators (increase in the number of children with a high level of environmental appropriate behavior: in the experimental group – 44%, in the control group – 13%) and qualitative changes (there were positive emotions and interest in working in nature; older preschoolers learned more about plants and animals of their group, learned to care for them constructively; they began to show positive caring behavior to objects of nature; learned to plan their work and distribute responsibilities among themselves to perform activities) according to certain criteria.

Thus, the sufficient state of formation of ecologically appropriate behavior in older preschool children recorded in the research process requires the search for innovative approaches in determining and using organizational and pedagogical conditions for senior preschool children environmentally appropriate behavior formation in the context of work in nature.

**Conclusions from the study and prospects for further exploration in this direction.** The study is substantiated and built on the basis of general scientific, pedagogical,

theoretical foundations, a set of relevant research methods and conceptual and terminological apparatus of research of ecological expedient behavior, which allowed to clarify the concepts of «ecology», «expediency», «behavior» and define the essence of «ecological senior preschool age».

The essence of ecologically appropriate behavior of older preschool children is considered as a formula «of ecological understanding of older preschool children of the importance of appropriate behavior in the environment to maintain ecological balance and harmony with nature». Ecologically appropriate behavior of older preschoolers consists of a set of interdependent structural and semantic components: emotional and value (attitude to nature as a value and awareness of unity with the natural world); information-cognitive (ecologically coordinated activity in nature on the basis of ecological and natural science knowledge, the main among which are ideas about connections and dependencies in nature); activity-effective (volitional activity in the natural environment, self-limitation of one's own desires and motivated behavior to nature).

The experimental study showed the dynamics of increasing the levels of ecological and appropriate behavior in older preschool children, which is due to the renewal of the ecological development environment of preschool education and the effectiveness of pedagogical support as a mechanism of long-term tripartite subject-subject interaction «teacher-child», which is characterized by the predominant use of interactive methods, techniques and forms, the implementation of which reflects qualitative changes in the emotional-motivational, activity-behavioral and cognitive spheres, etc.

The study does not cover all aspects of the problem of forming environmentally sound behavior in older preschool children while working in nature. The problem of purposeful preparation of future educators of preschool institutions for the introduction of pedagogical conditions for senior preschool children environmentally appropriate behavior formation also needs further research.

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