

# Practical Work in Nature Sciences in Primary Schools Organization

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## ABSTRACT

The article reflects on effective methods familiarization of students at the lessons of natural history and extracurricular activities organization and implementation of practical work.

**KEYWORDS:** *Practical methods, receptor, experiment, object, operation, excursion, herbarium, granite, aquarium, terrarium*

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## I. INTRODUCTION

Along with theoretical knowledge, practice also plays an important role in shaping the future professional qualities of students. Natural scientific knowledge has been acquired through many years of practical activity. It is known that natural science is a science that studies the various features of the material world, the various phenomena of nature, and is formed on the basis of scientific experience, and practice is the foundation of this science. The practical activity of mankind, based on knowledge of the laws of nature, determines the process of knowledge, the development of science. Practice is the measure of truth. The need for knowledge arises in practice and their accuracy is verified and confirmed through practice.

## II. MATERIALS AND METHODS

Knowledge does not appear in the human brain little by little, but is formed in certain activities. Practice is a key factor in man's relationship with nature, which, in turn, plays an important role in the system of human interaction, in social production. The main types of practice are material production and

scientific experimentation. Scientific natural practice performs the following functions.

1. Practice is a developmental factor in the learning process. It generalizes theoretical knowledge and does not allow them to be separated from life processes.
2. Practice is also the order, application, and purpose of knowledge.
3. Practice is a measure of the validity of the learning process.

Practice in science has been a key factor in scientific production. Practice leads to the emergence of theory, scientific formation and leads to the development of. The accuracy of knowledge is confirmed by the fact that the information about a particular object is true.

At the same time, if conditions are different, the reality may be different. For example, under normal conditions and pressure, water boils at 100 °C. But if the pressure changes or there is heavy water, it is clearly concrete.

The reality in a given system can change completely under different circumstances. The validation of an

idea in practice is a key factor of truth. It is advisable to start teaching practical work from the elementary grades.

Practical methods show that the word, demonstration, and practical work, which are organized and directed by the teacher, are designed to develop students' thinking in a complex interrelationship.

The application of practical methods is associated with the accelerated activity of receptors and effectors of students. Practical methods provide an opportunity to gain a deeper understanding of the material studied, to develop skills and competencies. The application of practical methods is a source of knowledge for students. Such methods include oral, written exercises, laboratory work, school activities in the corner of wildlife, extracurricular activities.

Types of practical methods:

1. Students make different things with distributed didactic material.
2. Drawing.
3. Work on the identification and identification of natural objects.
4. Tracking and recording events.
5. Experiments (including problem-solving through experiments).

The question posed before the start of practical work, students must answer the problem with its results. Science lessons are a type of practical methods of recognition and identification teaches students to recognize plants or parts of them.

Differences in comparisons develop the student's ability to identify. the collection of samples should be selected according to their age, vegetative methods, soil cuttings, adaptations, variability, the ability of students to assimilate. The age of plants in nature is only an annual solution from which the plants can be identified by their annual branching. The plant has a growing period from spring to autumn, with a dormant period from autumn to spring. This means that the plant is one year old, and in the second year it will sprout again. The distance between the branches is the age of the wire, which needs to be explained to the birds in nature. Students will gain practical knowledge, knowing that the age of trees can be determined without cutting them they get. It shapes both environmental and scientific concepts. Practical work in the field of methods of teaching science plays an important role in the development of knowledge about nature. Practical work is a method of teaching students to perform various labor operations in the course of their activities.

Practical activities include collecting natural materials during field trips, caring for plants in the school yard

and wildlife corner, creating herbariums and collections, making models, mock-ups, and visual aids. From the first grade, students learn through direct observation in the process of reading the textbook "The World Around Us". Demonstrative weapons include natural or real objects.

Natural weapons are objects of nature. They allow children to develop an understanding of nature on the topics being studied. Because the classroom can have a variety of houseplants, branches, leaves, flowers, fruits and seeds that are unique to the trees in their area to explore wildlife. Natural science classes use plants grown in a nature corner, as well as plants brought from herbariums and excursions. Natural objects can also be used to study animals. Although many animals can be shown to children in the classroom (in a corner of wildlife), excursions should be preferred, as this will give students the opportunity to get acquainted not only with their appearance, but also with their behavior. in the absence of animals, their chuchelas (overalls), models, or photographs and drawings may be used. In the study of inanimate nature, too, natural distribution material, for example, granite of different colors, quartz, field roof, clay, sand, calcite (chalk, marble, lime, samples of various coal, iron, copper ores, as well as metals and alloys) can be iron, cast iron, steel, aluminum, soil samples, and more. Demonstrated weapons are used to give students a clear and accurate picture of natural objects and phenomena that cannot be directly perceived. In the natural sciences, murals of local lore can be used. They help to form ideas and concepts about the local lore objects of nature. In the classroom it is necessary to use "Observation diaries" with printed pictures, texts representing them, questions and assignments for students. ) The first step is to draw a simple picture of the location of objects in the school yard. It is convenient to use maps to check the mastery of cartographic images by students. You are in the desert in the heat of summer.

"Cluster" method. This method allows the student to think freely and express their thoughts freely on a given topic. In this way, the student says and writes what he thinks. Written opinions, whether right or wrong, will not be discussed and will continue for a specified period of time. This creates an opportunity to further strengthen the connections between them by harmonizing the ideas put forward by each student in the class. The "cluster" method is carried out before the start of a new topic to engage the student in the lesson, to determine their previous knowledge on the topic, as well as to reinforce the previous topic. For example, the topic "Domestic and wild animals in our country." "Mosaic" means to create a whole look

from small pieces. In this case, pictures of birds, animals, trees, fruits are divided into pieces and distributed to each group separately. The participants in the groups bring the pieces together as a whole. The group leaders talk about an animal, fruit, or tree that has become integrated. "Pause reading" method. The teacher pauses several times during the text introduction process and asks the students questions. The questions should be relevant to the text. Or the student is stopped in the process of reading the text and asked what he or she is reading about. «Chain» method. It is advisable to use this method in lessons with poems, riddles and proverbs. Students recite a sequence of poems or riddles given in sequence. When using this method, the student will have to memorize the given poem, proverb, riddle, so as not to be ashamed "Picture rebus" game. The class is divided into three groups. Distribute pictures to each group. The name of the animal or bird must be derived from the initials of the name of the given pictures. For example, dog, stork, ohu, ninachi - non pomegranate, radish, porcelain flower, barley - spruce. "Who does it fast" game. Students are divided into three groups. Each group is given 5 pictures of animals or birds in reverse. Within the allotted time (1-2 minutes), students divide animals or birds into groups of wild or domestic animals. The group that completes the puzzle first without error is the winner. "Find your group" game. Students will be given colored folded papers. They will have the names of animals and birds written on them. The teacher explains to the students that they will find their group by making the same sound as the animal or bird pictured on the paper. 1. Cat (meow - meow) 2. Puppy (wow - wow). 3. Rooster (ku - ku - ku - ku). 4. Sigir (moo - moo). After they have been divided into groups, they tell what they know about the animals or birds that belong to the group. For long-term observations and experiments, a living nature corner should be set up where animals and plants can be kept and used as needed to study natural sciences. The corner is also for students' extracurricular and extracurricular activities is the material base. Here, an excursion where they can work at any time of the year can be the beginning of setting up a live nature corner. With life in the pond, students are placed mollusks, dragonflies, various beetles, gambusia, pescar (coin fish), as well as aquatic plants all in aquariums, glass jars. In the garden and orchard are often found fungi and worms of pests of fruit, berry and vegetable plants. It is desirable to set aside a separate room for a living nature corner. In the absence of such an opportunity, plants and animals are placed in a science room or classroom. For a living nature corner, the room will be bright, and it

will be convenient to place aquariums with aquatic animals and plants on various shelves in front of the window. The space allotted for animals in the corner should be appropriate to their living conditions in nature. It is better to take the aquarium from the zoo. However, you can use any glass container you want as an aquarium, but keep in mind that fish look good in a rectangular container. The number of fish in an aquarium should be commensurate with its size and the number of plants in it. This should ensure a balance of absorbed and excreted oxygen. Aquarium residents need constant care, food can be purchased at the zoo. Fish need to be fed at a certain time for them to form a conditioned reflex. Children should learn to measure with a thermometer and check the water temperature. For reptiles and both aquatic and terrestrial creatures, a variety of terrariums of different looks and sizes are included. A typical terrarium is a box made of metal or wood, with side and top walls made of glass and mesh. The glass wall allows you to observe the occupants of the terrarium, and the fact that the side wall and the top are made of netting also provide ventilation. The flora and fauna of the wildlife corner form its basis. Depending on it, the equipment is selected. The choice of plants and animals is determined by the nature program, taking into account the characteristics of local lore. All room wires must have labels with their names and information about when and where they were taken. Plants should be selected in such a way as to differentiate between moisture, heat, light, water consumption, including plants adapted to dry climates (cactus, aloe), tropical plants (navruzgul), let it be possible to demonstrate light-loving (henna) and shade-tolerant (aspidistra) plants. Then plants are selected that are experimented with using different species, such as geranium, fuchsia, begonia, cactus, tradescantia, elodea, violet, and so on. The school learning experiment area should be in the immediate vicinity of the school, the ground should be flat, well-drained, and not shaded. You will definitely need to wrap it around. Let the school experiment site be exemplary from an agronomic point of view. When organizing an experimental site, it is important to ensure that the activities that students conduct are designed to have a smaller room for storing work tools. The whole class works on the learning experiment site can be divided into compulsory work during the lesson, compulsory work performed by students outside of class time (in the form of homework or summer homework), and work of members of the Young Natural Science Circle. Students will be introduced to trees, shrubs, and plants in the fall, the variety and beauty of the shapes and colors of their leaves and flowers, hand tools

(hashish, mattresses), and how to work with them. In the spring, practical work will be conducted with first-graders on the training experimental site. They learn the rules of sowing seeds and caring for them, watering, weeding, plowing the base piles. First graders prepare the seeds for planting and plant them in the ground, taking care of the plants. Students will be introduced to the rules of work week and personal hygiene, rules of collection and storage of seeds, which must be followed during the work on the training and experimental site in the fall, prepare for tillage in the fall, collect fallen leaves and twigs. In the spring, students prepare to sow the seeds of flowering and legume plants, select large and healthy seeds, fertilize them, and grow them (sowing the seeds in the ground). Then the material is leveled with a scraper. By sowing the seeds in the ground, they do not bury the top once, they carry out the next care of the plants. Students will learn the rules of occupational safety and personal hygiene when working with a shovel and shovel in the fall, collect seeds from plants grown on the site, clean the site from plant debris, make fertilizer, and turn over the soil. , summarize the work on the pre-school educational-experimental site during the second grade, prepare materials for the school exhibition. Pupils prepare to sow the seeds of root crops (radishes, beets, carrots) and annual flowering ornamental plants (cosmea, astra, dogwood, roses). They prepare seedlings for planting tubers, conduct experiments and observations to determine the effect of fertilizers on root yield and growth and development of flowering ornamental plants. They sow the seeds of root crops and flowering ornamental plants in the ground, make experiments, and look at the crops. They water, weed and plant seedlings. Students harvest and account for the fall harvest, learn about storage rules, collect seeds, cultivate the soil, and prepare berries, shrubs, and fruit trees for the winter. In addition, students remove the old bark from the trunks and main stems of fruit trees, throw soil around the body, fertilize it, and plant ornamental shrubs. The primary school teacher should take into account the climatic conditions, the location on the school premises and agree on all issues with the biology student while organizing the work on the learning-experimental site. The experience is the young naturalist's agricultural experiences and additional practicality is the basis of his work: because it is where the plants that are studied in science classes grow. From elementary school, they explore their lands, their places, make observations on nature, conduct excursions. During their primary school years, they collect a wealth of accurate material, which is placed in a local history corner.

Over time, the corner of local lore collects the most valuable materials from previous graduates of primary school, which are used systematically in the teaching of natural sciences. The local history corner will be set up in a science room or in a separate classroom.

### III. CONCLUSION

Take the landmark and mark the south side. As a result of practical nature observations, the south can be identified on the basis of the following factors: 1) reptiles always point their nest to the south; 2) birds always place their nest to the south; 3) the branches of the plants are always bent to the south; 4) the southern side of the plant stem is constantly oiled; 5) Barkhan sands have one end in the north and the other in the south. Gives students a variety of objects, including a picture, a photo and a matchbox, a cube, a glass, etc. they draw on paper. Once the task is completed, the top view of the object leads to the conclusion that it is called a plan. Then the plan of the table is drawn. "Word find" game. This method can be used in all parts of the lesson. The teacher says a word about birds, animals, fruits, vegetables, and the students continue. Whichever letter the teacher starts with, the student should say the word that starts with that letter. For example: fox - snake - dragonfly - dog - hedgehog - nortuya - lazy (panda - bear crow, etc.) This method helps students to think quickly, respond and strengthen their memory.

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