



## TRAINING AND EXPERIMENTAL SITE AND ORGANIZATION OF TRAINING BASED ON AN INTEGRATIVE APPROACH

Ismatova Zulaykho Asadovna

Dotsent TSPU named Nizami

Phone: (93)302-54-67

<https://doi.org/10.5281/zenodo.7572588>

### ARTICLE INFO

Received: 17<sup>th</sup> January 2023

Accepted: 25<sup>th</sup> January 2023

Online: 26<sup>th</sup> January 2023

### KEY WORDS

Primary education, school playground, seasonal work, integration, science, presentation, understanding, soil, humus, observation, plants, experience, practical work, care.

### ABSTRACT

*The article provides information that primary school students, through the organization of seasonal work at the school educational and experimental site, need to develop students' observation skills, conduct observations and experiments on plants, carry out practical work on observing the life and development of plants, take care of them, as a result of which they form natural science knowledge, skills and abilities, as well as improving the skills of applying them in practice.*

Teachers have realized the need to create educational and experimental areas at school since the introduction of the natural science course in general education schools. From the middle of the 19th century, teachers actively promoted the organization of school training grounds for educational purposes. A.Ya.Gerd created an educational garden for the education of juvenile criminals in the children's colony. At the end of the 19th century, school training grounds were created only in rural schools. This was necessary both for educational purposes and for the material support of the teacher.

After 1917, there was a massive development of school training grounds. They were grown in order to form labor education among students, to get vegetables for school canteens. Since 1935, a system of educational and experimental work began to be formed in school districts. In the works of PA Zavitaeva, NM Verzilina, MN Skatkin and others, great attention is paid to the methodology of organizing such work. All modern schools should have a school training ground for permanent use in order to develop interest in agricultural work and to develop basic skills in growing plants. Experimental work is carried out on the school grounds, on the basis of which research skills are formed in children.

The primary school training ground stands out as an independent part. The size of school training grounds depends primarily on the number of students.

Departments for collecting vegetables, fruits and berries have been established on the training ground of the elementary school. In the city school, the largest area is occupied by a flower garden and ornamental trees and bushes, and in the rural school, the department of vegetables. Children's work in agriculture begins with setting goals and work plans, along with conducting practical work on school training grounds. After the planned work is carried



out, the results are summarized and the results of the work are recorded. Research work in physical labor and natural sciences should be carried out together with phenological observations.

According to M.N.Skatkin, the effectiveness of practical natural work depends on the teacher's ability to combine children's physical work with mental work, "to combine the minds of students with their working skills". It is very important to teach children creative work from elementary school.

Equipment and tools are used depending on the specific tasks of the training ground. Here, students plant plants, take care of them, and analyze their development. It also allows you to prepare herbarium albums showing the stages of plant development. From the school training ground the use of removable materials in the educational process has a great effect. Because students learn more about the things they care about. On the school training ground the special features of the training sessions are that the students not only have an understanding and imagination about the stages of plant development, their stem, leaf development, flowering and ripening, but also perform them in practice.

The school's training ground is very important for observation and experimental work on plants. It is an open air laboratory. There, students deepen their theoretical knowledge, acquire training and skills in plant and animal care, conduct practical work on observing the life and development of plants.



As a result of this, not only knowledge, learning, skills, but also education of hard work in students, motivation to have a conscious attitude towards the environment.

Elementary school students should have knowledge of growing a certain flower, ornamental plant and fruit plant during their studies, and the teacher should consider the complexity of their care, educational factors it is necessary to take into account the effect on them, the ease or difficulty of the theoretical material related to plant cultivation.

In addition, students will also develop ideas and concepts about seasonal work, that is, tilling the ground with the arrival of spring, planting seedlings and seeds, taking care of them, ripening some of them by summer, and harvesting crops in autumn.



Concepts are also formed about the end of life and the changes that occur in plants during the seasons due to the gradual yellowing of plants in autumn.

Learning experience on the field by organizing seasonal work, not only knowledge, learning, skills are formed in students, but also hard work, a conscious attitude towards the environment, a sense of aesthetic beauty, in addition to providing them with ecological education, i.e. plants to the amount of oxygen in the atmosphere understandings about its effects are being formed.

Learning experience on the field by organizing seasonal work, children develop observational skills, observe and conduct experiments on plants, take care of them, as a result of which, they can increase their skills in practical application of natural science knowledge and skills.



It is required that the training ground of the school should be located directly near the school, the ground should be flat, and there should be no shadow. It should be fenced around and there should be a separate smaller room for storing work tools. It is the responsibility of the teacher to protect it.



Before starting the training, a plan of the work to be carried out is drawn up, the results of the work and the activities to be held are clearly expressed.

The work carried out at the school training ground can be divided into the following types:

- 1) compulsory activities conducted during class with the whole class;
- 2) compulsory work performed outside of school hours;
- 3) works of members of the circle of young naturalists.

In the 1st grade, students get acquainted with trees, shrubs and herbs in the fall, with the variety of shapes and colors of their leaves, flowers, tools used with sand, and ways of working with sandpaper.

It was given in the 1st grade "Natural Science" textbook in the spring. What do plants need to grow?", "Plant diversity", "Plant structure", "Planting and caring for plants" conduct practical work. They will learn about planting seeds, caring for plants, watering, planting. Older planters do the work of tilling the soil, making furrows, while the younger students prepare and plant the seeds (flowers, trees) for planting. In this "Native language and literacy", it can be integrated with topics such as spring in our country, human labor in spring, and changes in the plant world in spring.

In the 2nd grade "Natural Science" textbook the diversity of plants", "Plant organs", "Life cycle of plants" is also effective when teaching on the training ground. In the 2nd grade, children get acquainted with the rules of labor safety and personal hygiene during work in the field in the fall, the rules of collecting and storing seeds. They clean the fallen leaves, branches and plant debris from the site. Doing these things 2nd class "Native language and literacy" "Autumn in our country" in the textbook, can be integrated with topics such as "What is patriotism?", "Hashar - fits the hand".

And in the spring they prepare flower ornamental and legume plant seeds for planting. To do this, they selectively germinate healthy seeds, sow flour. They grow fingernails, gulidovids, peas, beans, etc. Then they draw a dash and take a dash. They set a label - label with



sowing seeds on the ground. Then they take care of the plants. At this time, under the guidance of the teacher, they carry out the experiment of simultaneous sowing of dry, fertilized and collected seeds. With this, they determine and record the release of grass and the development of plants.



Students of the 3rd grade get acquainted with the rules of labor safety and personal hygiene when working with hoes and shovels in the fall, collect plant seeds, clean the ground from plant residues, apply fertilizers, till the soil, etc. prepare materials for the exhibition.

In the spring time, they prepare for sowing seeds of root vegetables (rediska, beets, carrots) and annual flowers (astra, dogrose, hyena). They conduct experiments to determine the "influence of seedling thickness on the yield of rootstocks and the growth and development of flowers."

They also prepare cuttings and carry them. Fourth grade students in autumn harvest, learn how to store it, collect seeds, cultivate the soil, prepare the tree and bush for winter. Around the fruit trees and shrubs, the soil is thrown, fertilizers are introduced, seedlings are planted.

During the spring, they determine the fertility of vegetables, fields and flowers, and grow seedlings such as tomatoes, cabbage, aromatic tobacco. They take care of seedlings. 1st graders help with ground work. They sow seeds in the flower garden and feed the bruised plants. They also take care of perennial flowers, multiply them by knowing their types, and treat garden and lawn pests. Plants are not affected by climatic conditions. During the performance of these works, concepts are formed about the work of the gardener or peasant grandfather on the topic "Professions" in the textbook "Native language and reading literacy" of the 2nd grade. In teaching topics such as the 1st grade Alphabet textbook "Topping and anchoring the name of vegetables and fruits", "Conversation of freshly planted sprouts", imagination can also be awakened and observations can be made on the educational and experimental site. Subjects such as "Natural materials" in elementary school technology classes, "Making optional shapes from leaves", "Making animal shapes from natural and



different materials“,” Making patterns from seeds“,” Making a hedgehog shape from natural materials“,” adding “in mathematics lessons,” subtracting“,” issues related to geometric shapes and measurements“,” adding in 10“,” adding in 100“,” two-digit numbers“,” Fragments of the whole (equal fragments) " can be integrated with practical and observation work on the school. The practical work carried out on the school's training ground is of great importance in the formation of the connection and deepening of theoretical knowledge with practice, training in handling agricultural tools.

So, in order to organize work with students on the school training ground, our future elementary school teachers themselves should know what the training ground is, imagine, organize it on the training ground it is necessary to have knowledge, skills and competences to carry out practical work, observations, experiments, and pass the sciences on the basis of an integrative approach.

For this purpose, in the lecture classes, they are given concepts about the school's educational and experimental site, imaginations are formed, and screen tools are used. During our practical training, they prepare the training ground themselves, and based on their imagination, each of them describes the school training ground and draws a diagram. It determines how many areas it should consist of, based on how many meters are distributed to each student. It is integrated with mathematics. In addition, based on the topics in the classes, practical work plans are drawn up.

Integrated with the subjects given in the course of teaching the subject of native language and reading literacy.

## References:

1. Belskaya Ye.M., Mominov OA, Natural science lessons. - Tashkent: "Teacher", 1980. - 224 p.
2. Исмадова З.А. Влияние экологических факторов на распространение и развитие водорослей р.Сангзар // «Исследование различных направлений современной науки» сборник материалов XXXVI международной научно-практической конференции. – Москва, 2018. –С.25-29.
3. Ismatova Z.A. Development of the Algae Flora of the Middle Sangzor River under the Influence of Environmental Factors // Journal of Geography and natural Resources. 1 (01), 11-15. DOI: <https://doi.org/10.37547/jgnr-01-03>
4. Ismatova Z.A. Systematic analysis of indicator saporbine species of alcohols of the Sangzar River. The Tenth European Conference on Biology and Medical Sciences. European Science Review. – Vienna, 2018. –№3-4. – P. 39-42.
5. Nuritdinova M. "Tabiatshunoslik o'qitish metodikasi". -Toshkent, O'qituvchi 2005-yil.
6. Pirimovna X.D., Asadovna Z.A., Baxtiyor qizi T.M. Theoretical and practical foundations of the competence approach to the primary education system // Journal of Pharmaceutical Negative Results, 2415-2422.
7. Пакулова В.М., Кузнецова В.И. Методика преподавания природоведения. – М.: Просвещение, 1990. – 192 с.
8. Пакулова В.М., Кузнецова В.И. Методика преподавания природоведения. Учебник для студентов педагогических институтов по спец. №2121. - М.: 1990. -192с.



9. Sharipova D., Khodiyeva DP, Shirinov MK Science and its teaching methodology. - Tashkent, 2018.
10. Shirinov M.K. The principle of coherence and continuity in the teaching of science as a mechanism for increasing the effectiveness of education. // "Modern Education" magazine, 2018, No. 3. -57-62.
11. Shirinov M.K. Problems of coherence and continuity in the content of teaching the subject "Natural science and its teaching methodology" in the training of primary education specialists. Modern education. 2016, 7.