

Educational and Pedagogical Tasks of Natural Sciences

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ABSTRACT

An important task of the methodology of teaching science in the article is to develop an individual program for each class. In general, the content of the subject is determined by the school curriculum, which changes and improves with the development of science.

ARTICLE INFO

Article history:

Received 27 January 2022

Received in revised form

30 January 2022

Accepted 14 February 2022

Keywords: Natural sciences, teaching methods, tasks, primary, school, natural sciences, wildlife corner, study area, geography area.

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The methodology of teaching science has the following tasks:

To determine the importance and place of science as a subject in the system of general education and complex education;

Selection and combination (synthesis) of natural materials.

Defining its educational and pedagogical functions.

Teaching science in elementary school is not just about learning about some of the facts of nature and the appearance of plants, animals, and humans. The teaching of natural sciences reveals the interrelationships between the various objects of animate and inanimate nature, between animate and human labor in a way that young schoolchildren can understand, the love of nature, the preservation of its richness and should cultivate a desire to use it with care. Accordingly, students of pedagogical schools learn to plan science lessons taking into account the issues of nature protection.

The elementary school science course covers a wide range of natural phenomena, making it sometimes difficult to make observations that relate to the phenomena being studied. Therefore, in the selection of objects for the initial study of natural science should take into account: the age characteristics of students, the comprehensibility of the studied material, its educational and developmental impact, the presence of local lore material, the acquired knowledge it is necessary to take into account the possibility of using the school in the performance of work on the living nature corner and the educational-experimental plot.

An important task of science teaching methodology is to develop an individual program for each class. In general, the content of the subject is determined by the school curriculum, which changes and improves with the development of science.

In order to fulfill the educational and pedagogical tasks of science, it is necessary to use different teaching methods and different forms of organization of the educational process. The fulfillment of all educational

tasks depends on the correct choice of methods. Without independent observations in nature, it is impossible to develop observation in young students, to understand the life of plants and animals without direct study of living organisms, without practical work on the cultivation of plants and animals. It is impossible to develop practical training and skills of labor.

The process of teaching science involves not only the teacher but also the students. The result of the training should be a thorough mastery of the material provided in the program. Therefore, the study of teaching methods and forms of student organization goes hand in hand with the study of the process of mastering the material.

The importance of any method used the fact that students have mastered the material, the formation of the necessary ideas and concepts, cannot be known without determining the educational results. Only on this basis can any method be evaluated correctly.

It is important to take into account the knowledge of students in the teaching process and to evaluate the results of each student and the teaching as a whole.

The development of teaching methods is closely linked to the development of teaching aids, as teaching aids and other equipment are the basis for the formation of ideas and concepts in science. The methodology of natural sciences, as well as the material cost of teaching - the study of natural sciences, the corner of wildlife, the experimental plot, the geographical area, the organization and use of teaching aids, without which the teaching of natural sciences it will not be possible to carry it.

As children explore the world around them on a regular basis, it is important for young students to develop a holistic view of nature, their place, and the natural resources of the entire country. Students should get acquainted with how people use the natural resources of our country in their work. It is important to show children that human labor is closely linked to nature.

- The following requirements apply to young students:
- To give clear knowledge about animate and inanimate nature, to reveal their interrelation;
- provide information about the human body and its health;
- Equipping with nature observation training and skills;
- to acquaint with human labor activity aimed at rational use of nature and increase of its richness;
- Nurture a love for nature and a desire to protect it.

Modern pedagogy sees education and upbringing as two sides of a single process called pedagogy. The educational nature of education is determined by its content. Therefore, teaching science provides the teacher with rich material to develop students' thinking, creativity and cognitive activity. All science topics cover complex educational issues.

Methods of communicating knowledge to students are also educational, and all student activities are related to the process of acquiring knowledge.

In this regard, teaching science provides a great opportunity for the teacher to do educational work. Oral, visual, practical and other methods are used in teaching science. More and more methods are being used to develop children's creative activity and individual abilities.

Science classes should be closely linked to extracurricular and extracurricular activities: outdoor games, field trips, and walks.

Comprehensive education of students in the process of teaching science

Science, with its content and methods, has endless possibilities for the comprehensive education of students.

Nature is a world science, and therefore science lessons require a well-thought-out method of conveying the content of the study material, the main purpose of which is not only to memorize the body of knowledge, but also to turn it into trust. Confidence should be expressed in people, attitudes, habits, behavior, and attitudes. At the forefront of this is the connection of natural science with life. It is

important that our lives are in order, that students are clearly acquainted with government decisions that reflect specific national economic plans.

Forming the foundations of the material worldview

The formation of natural science concepts is the result of a complex thinking process. By leading this process, the teacher reveals the secrets of nature in vivid examples, instilling in students the basics of the material worldview.

A systematic gradual introduction to nature lays the foundation for this work. By introducing the properties of matter (sand and mud, minerals, water) and conducting practical exercises, the teacher helps students to understand human activities aimed at changing nature.

By introducing children to the environment and human life, the teacher should explain the causes of natural phenomena in concrete examples and help students understand the simple connections between these phenomena. As a result, students gain knowledge that allows them to understand that nature is a whole, in which bodies and events are inextricably linked.

In science classes, the foundations of the material worldview are formed in the course of a teacher's systematic, long-term work. From the very beginning of the study of natural sciences, students should be able to form a material understanding of the flora and fauna, to carry out practical work, experiments, observations, excursions, and the acquired knowledge should be scientifically confirmed.

Under the influence of a teacher's story, confirmed by personal observations, students gradually gain confidence that there is nothing supernatural in nature, that all natural phenomena are explained by natural laws, and that knowledge of these laws allows man to use natural resources wisely.

Aesthetic perception of nature

Younger students are more likely to be excited about the world around them. Although children look at everything, touch it with their hands, and listen to adults' explanations with pleasure, they do not notice much in the events around them, because they are exposed to the stimuli that arouse their emotions and interests. They pay no attention to things that are not exciting, even if they are important. This explains why children notice the details of things that adults do not pay attention to, because it is very important for them. Therefore, when introducing children to natural objects, it is necessary to pay special attention to their attractiveness and beauty.

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