# METHODOLOGY FOR DEVELOPING STUDENTS' CREATIVITY IN TEACHING NATURAL SCIENCES IN PRIMARY EDUCATION

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**Annotation.**

This article analyzes effective methods for developing creativity among primary school students in the process of teaching natural sciences, interactive approaches, and didactic tools that encourage creative thinking. It also highlights creative mechanisms for developing students' professional and creative abilities, as well as practical activities such as observation and experimentation in the educational process.

**Keywords:** natural sciences, creativity, creative thinking, experimentation, observation, creative cognition, didactic games.

Today, it is essential not only to equip students with knowledge but also to develop independent thinking, creative approaches, and problem-solving skills. The primary education stage is a crucial period when a child's scientific worldview develops, and their creative thinking evolves through studying natural phenomena. Therefore, fostering creativity in the teaching of natural sciences is considered one of the most important tasks of modern pedagogy.

**The Role of Creativity in Teaching Natural Sciences**

A primary school student begins to demonstrate creative thinking through observing, comparing, and generalizing real-life events. Through nature study lessons, students understand cause-and-effect relationships in natural phenomena, learn about the life of plants and animals, weather processes, and the properties of water and air. During this process, it is important for the teacher to activate students' observation skills, curiosity, and desire for exploration.

For example, asking a simple question such as "Why is our shadow longer when the sun rises?" encourages scientific inquiry and allows students to test their assumptions.

One of the most effective tools for developing creativity is learning through experimentation. Primary school students perform small experiments with great interest. Simple experiments such as evaporation of water, melting of ice, magnetic attraction, or the straight movement of light stimulate scientific

thinking. During experimentation, students predict the outcome, test it, and draw conclusions. This is one of the most important stages in developing creative thinking.

Creative thinking also naturally develops when using observation methods. Observing nature, plant growth, the development of trees, types of animals, and their reproduction processes unconsciously leads students toward creative thinking. Natural events motivate students to explore and investigate.

Experiment-based teaching remains one of the strongest methods. Experiments such as evaporation, melting, magnetic attraction, and light reflection enhance learners' scientific reasoning. Students make predictions, check results, and reach conclusions—an essential stage in nurturing creativity.

**The Teacher's Role in Developing Creativity**

The teacher plays a vital role in shaping students' creative thinking. The teacher should provide opportunities for free expression, value every idea, and view mistakes not as failures but as steps for further thinking. Using visual aids, natural materials, multimedia, and modeling enriches students' imagination and stimulates creative activity.

Didactic games serve as a natural and effective means of developing creativity. Through games, students make decisions independently, generate new ideas, learn teamwork, and express their thoughts openly. This increases creativity and strengthens interest in natural sciences, motivating deeper exploration of natural phenomena.

The teacher, as the main guide of creative thinking, encourages questioning, values each idea, uses various methods and visual aids, promotes teamwork, creates opportunities for experimentation and observation, and integrates interactive methods with play-based learning.

A teacher's creative approach is the foundation of a student's creative development.

**Conclusion**

Teaching natural sciences in primary school is one of the most effective ways to develop students' creative thinking. Studying natural phenomena becomes a process of exploration, discovery, curiosity, and experimentation for the student. If the teacher guides this process correctly, children's independent thinking, creative approach, analytical skills, imagination, logic, and initiative will grow significantly.

Natural science lessons help shape a learner who is:

• observant

- curious
- able to think
- inclined to research
- creative
- capable of making scientific conclusions

Therefore, developing creativity is a natural and essential result of teaching natural sciences.

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