

The Use of Information and Communication Technologies in the Process of Teaching Mathematics as a Means of Improving the Quality of Students' Knowledge

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Annotation: This article is devoted to the preparation of students in the field of mathematics. Only in this case, modern education will be of higher quality. A person who skillfully and effectively masters technology and information has a different style of thinking, a different type of thinking, a different approach to assessing an emerging problem and organizing his activities.

"Computer technologies are currently designed to become not an additional "(additional) weight" in education and upbringing, but an integral part of the educational process, which significantly improves its quality".

Today, a student should be able to choose an individual learning path. In other words, the primary task of education is to form the personality of students, to educate their ability to analyze and make responsible decisions. Only in this case, modern education will be of higher quality. Of course, physical education is no exception and must meet the expectations of society and develop in the light of modern trends. Of course, one of the main resources for improving the quality of education is the improvement and introduction of modern pedagogical technologies.

Knowledge of information technology in the modern world is equated with the qualities of reading and writing. A person who skillfully and effectively masters technology and information has a different style of thinking, a different type of thinking, a different approach to assessing an emerging problem and organizing his activities. Information and communication technologies (ICT) are able to provide personalization of learning, adaptation to the abilities and interests of students, the development of their independence and creativity, access to new sources of educational information, and the ability to use computer technologies.

The novelty lies in the competence-based approach, the use of new information technologies and the integrated nature of learning: when using various forms of ICT, knowledge of the basics of computer literacy is necessary. The educational program of ICT technology as an effective means of achieving the quality of education in mathematics. In addition, the use of ICT has an obvious practical direction.

The level of computer literacy allows the teacher to develop their own computer products in the following forms: handouts, multi-level tests, documentary and methodological collections, computer presentations on the topic, methodological work, creation of websites, interactive presentations, etc.

In a mathematics lesson, the use of ICT enhances the activities of teachers and students; improves the quality of teaching the subject; reflects important aspects of mathematical objects and implements the principle of clarity.

There is an assumption that the use of ICT affects personality development in different ways. Students who have a mathematical mindset and love computer technology may experience negative dynamics in the development of interpersonal communication skills (partial refusal to communicate with other people, violation of friendly relations, weakening of emotional reactions, narrowing of the range of

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interests). Students of technical orientation may experience polar shifts: saturation of the emotional sphere, desire for interpersonal communication.

Technologies. To determine and analyze the initial level of information competence development (the level of knowledge of various ICT tools) students need to conduct a survey of participants in the educational process. During the survey, the results show how well students can work in Word and Power Point programs, can search for information on the Internet, whether students are familiar with Excel, as well as the level of presentation skills of middle school students.

In the Center of learning with the help of computer technology, there is, first of all, a fundamentally new model of organizing student education, which will interest every creative teacher and will allow you to get answers to the questions posed earlier.

Every year, graduates choose mathematics in the form of a state final exam. The use of ICT technologies in the educational process can be achieved through: Educational activities. Extracurricular activities. Excellent guidance. (Classical ordination) I see the following advantages of using computer technology in the classroom: The possibility of using it at different stages of the lesson; Reuse and the need to stop at the right time; A number of mathematical problems that can be observed only with the help of special equipment to show the details of the studied objects and their parts; observation of microcosm processes and high-speed processes; perception of the material at the visual, auditory and sensory levels.

The forms of using ICT in the classroom are also different. When preparing and conducting math lessons at different stages of learning, we use various forms of ICT, including:

1. **Multimedia.** Multimedia lessons can be provided on CD-ROM - for use on an offline personal computer.

Working with multimedia tools allows you to diversify the forms of work in the classroom through the simultaneous use of illustrative, statistical, methodological, as well as audio and video materials.

2. **Presentations in math lessons.** The use of multimedia presentations is recommended at any stage of the study of the subject and at any stage of the lesson. The presentation allows the teacher to be creative, stand out, and avoid a formal approach to conducting classes. This form allows you to present the educational material in the form of a system of clear reference images with comprehensive structural information algorithmically. In this case, various channels of perception of students are involved, which makes it possible to consolidate information in the memory of students not only in a factual, but also in an associative form. The purpose of this presentation of educational information is to form a system of thinking formation among schoolchildren.
3. **Using the interactive whiteboard and SMART Board software.** An interactive whiteboard (ID) is a set of equipment that allows a teacher to make the learning process clear, visual, dynamic, promotes effective feedback, increases learning efficiency, introduces new understanding, helps the learning process and increases student motivation.

In the process of working with the interactive whiteboard, the following types of tasks can be presented: computer observation, experimental research tasks, tasks including computer testing, laboratory work, didactic games, demonstration of finished material (front-end work), public discussion with demonstration of the results of independent work of students (group, individual form of work), organization of control in advance prepared material (tests, diagrams, drawings) and many others.

Literature



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