

Specific Characteristics of Indisciplinary Educational Problems on Newton's Laws at School

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Annotation: In this article, the interdisciplinary practical issues of physics and Newton's laws for students in general secondary schools and their specific features and their practice are brought out.

Keywords: competence, physics, assignment, problem, technology, graphic method.

Today, digital technologies are rapidly developing and require advancement in every field. The use of digital technologies is of great importance in improving the quality of education and educating socially active young people. Previously, we conducted educational programs in the traditional way, i.e. lectures through bulky books and manuals. This, in turn, did not ensure that the quality of education was so high. Currently, the process of digitalization of education has begun to improve the quality of education.

The current state of the education system is characterized by the increasing role of non-traditional educational technologies. Learning by the learner with their help is much faster than with traditional technologies. These technologies change the nature of knowledge development, acquisition and distribution, deepening and expanding the content of the studied subjects, quickly updating it, using more effective teaching methods, and also significantly expanding the opportunity for education for everyone. will give.

The ability to logically think about the role of physical education in science and technology, technology, development, production areas and life, intellectual development, formation of the potential for self-awareness, formation of national and universal values in them, social life and acquire the theoretical knowledge necessary to continue their education, teach them to use in their daily life;

1. The content and analysis of the general secondary education program in physics. Levels of knowledge, skills, skills and competencies that students should acquire in the 6th-11th grade section.

2. Lesson development is a factor that determines the teacher's creativity. A lesson plan is a pedagogical, didactic and methodological planning document. Methodological recommendations for creating lesson plans. Formation of students' basic and physical science skills, qualifications and competencies; is to develop students' ability to apply physical knowledge to life, connecting

their practical activities with broadening their outlook on the physical landscape of the world. The tasks of teaching physics:

To create confidence in students to study the environment, to observe and analyze the processes and phenomena in nature, to be able to use tools correctly in the study of physical phenomena and processes, to be able to express physical concepts and quantities with mathematical formulas, the achievements achieved in the field of science, the development of scientific worldviews in students through their practical application, the respect for the creators of science and technology in the correct use of the achievements of science and technology for humanity in the future, the careful preservation of their spiritual and cultural heritage is to educate the elements of universal culture. Connection of the physics course with other academic subjects:

The main purpose of connecting the physics course with other academic subjects is to ensure the systematicity of knowledge; forming ideas about natural phenomena and their interrelation in the minds of students; formation of students' ability to establish connections between events, processes, concepts and theories on a scientific basis; strengthening the polytechnic orientation in education; forming students' ideas about the generality of the laws of nature and the importance of natural knowledge in various fields. Connection of the subject of physics with the subject of mathematics:

Approximate calculations are used in the 6th-7th grade. In the 8th grade, it is recommended to determine measurement errors in laboratory exercises in physics. Trigonometric functions, quadratic equations and other mathematical operations are widely used in the study of mechanics.

In the process of studying Newton's laws in the course of physics, this law can be applied to several processes and problems of the mechanics department. It is directly related to the science of mathematics. For example, the graphic method has several advantages over the analytical method: for example, a graphic shows the progress of a physical event or process, or the process visually reveals the dynamics of the event. The graphic method, movement graph, electrical conductivity of different environments, deformation, etc. are covered.

It is necessary to use mathematical concepts in their place and correctly. For example, in determining physical formulas and unknown quantities, the concept of division, subtraction, addition, multiplication, operations, proportion in the formula works. During the study of physics, students should consider the reflection of real connections of mathematical formulas and their derivation from these connections. Interdisciplinarity strengthens knowledge about academic subjects, increases interest in science

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