

## MODERN TEACHING METHODS OF PHYSICS

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### Abstract

After the independence of our country, special importance began to be attached to the issue of raising the younger generation, giving it Knowledge, which is its future. For this reason, as early as the first days of independence, the restoration of our spirituality, to the level of world templates and requirements based on its further upgrade, harmonization with modern requirements particular importance is attached to the release.

**Keywords:** independent, physics, teaching method, release, modern requirements, citizens defined the legal framework.

### Introduction

"On Education" adopted by the decree of the president is the law. The Act provided education, training, and assistance to citizens defined the legal framework for vocational training [1].

It aims to ensure everyone's constitutional right to knowledge The main tasks of studying physics are as follows [2]:

1. Introduction to the basics of physical science-introduction to basic concepts, laws and theories; formation of the natural-scientific landscape of the world that surrounds us in the minds of learners; basic natural scientific search introduction to methods.
2. In the process of studying the material, it is necessary to enrich the memories of the Os, as well as their creative abilities also develop.
3. Formation of scientific worldviews of farmers.
4. Educating students in the process of teaching the basics of physics: ideological-political, military-patriotic, implementation of international, moral and labor education.

Dialectical character of the process of knowing and knowing the world in the minds of learners in physics lessons; of the world it is explained that material unity is inseparable from matter and action; phenomena in nature are interconnected; whether the Hoss of the material world are inexhaustible, the process of cognition is limitless. This means the formation of their worldviews [3].

0 ' second view of matter while studying whether the layers of the substance are composed of atoms and molecules — they also get acquainted with the concept of the field.

During the entire physics course, matter is interlinked manifested in two manifestations, namely in the form of matter and area it is necessary to indicate the degree of B. Material unity of the world it is important to consider the general properties of matter and space in the formation of a whole in the minds of those who have already developed visions of it.



1. The concepts of mass, energy, momentum, spin are also, "matter" also characterizes "field" particles.

2. Corpuscular-throat dualism also applies to particles of matter, also applies to field particles and wave the Union of properties is important for all elementary particles it is characteristic.

3. Like the transformation of matter particles into field particles, field particles become matter particles.

4. Whether the particles of either appearance are stable it is also possible that they will live for a short time.

O' cells focus on matter particles using the field of various structural systems (atom, molecule, macro-organism...) should be focused on yield. The structure of matter cannot be imagined without a field. Particle interactions affect through the field.

O' little by little different movements in teaching physics movement of students through the study of matter leads to the fact that they understand that it is an integral property.

At school, first O's with mechanical movement, then they are introduced to molecular motion and electron motion.

Mechanical motion at the time of studying the phenomenon of electromagnetic induction (motion of the conductor in the magnetic field) the attention of researchers to the connection between the movement of electrons and the formation of the electromagnetic field it is necessary to attract [4].

The non-vanishing of movement is the conservation of energy and finds its expression in the law of rotation. About energy initial concepts are given in Grade 6. New for those studying electrical phenomena rotation of the b-passed motion and the corresponding energy the concepts of to are considered. Here is the importance of movement (energy) to new manifestations should give.

In the process of teaching physics, students are told that the phenomena the relationship, the reasons for their occurrence and the laws of development are explained. M.: the cause of deformation is the interaction of bodies. Electric charge the action (cause) generates a magnetic field (consequence).

Readers are clear about the links between events their attention to the fact that they form imagination phenomena focus on looking for important links between needed. In this, not only physical phenomena, but also other (biological, chemical...) links to events as well the opportunity to show will increase.

Quantitative changes in nature lead to qualitative changes it is of great importance to shape the arrival in the minds of learners. It is a substance from one aggregate state to another it is shown in the explanation of its passage. U body internal change in energy and influence of your molecule mainly explained.

During the course of studying the physics course, the struggle of opposites, the law of unity, also takes shape in the minds of learners.

The laws of physics in the formation of a scientific worldview opening up the objective character, knowing the phenomena of nature it is of great importance to indicate the possibility. Because the laws of science are a reflection of the laws of nature. Hence to show each law in the experiment and it is necessary to familiarize yourself with the application. In some cases



laws are defined based on experience. (M: Archimedes' force, Ohm Law, etc.). In some cases, the fullness of the conclusions experience is used to confirm [5].

During the entire physics course, O's know the world they need to make sure they can. Science and it is important to show that as a result of the development of the technique, the secrets of nature that have not yet been studied and come to mind are revealed. M.: atomic structure and study the universe.

Through a consistent study of the physics course, learners are confident that the world can be known, the current physical picture of the world. They define the dialectical method as they also have the skills to practice, since the development of physical science itself is a dialectical path.

Major scientists, inventors in the upbringing of learners in the spirit of patriotism and internationalism in physics lessons a big role is played by seeing his life and work. Berunius, Recounting the scientific inventions of Ibn Sino and others, on their patriotism, their towards science must be fulfilled.

O' the role of the continent is to ensure the services of scientists in the development of Science, Technology, Culture and how their discoveries serve humanity it consists of revealing figuratively.

In physics classes, many foreign scientists (B. Pascal, A.O. Popov, R. Guk, H. Huygens, W. X-Ray, G. Gers, Curie) science and science by highlighting their scientific activities it is necessary to show that the technique has an international character. This is a friendship in adolescents and another country serves to form a sense of respect for their people.

For example: stages of development of Cosmonautics during the study of reactive movement, its founder K.E. Siolkowski, a. D ender Chief group first B / liquid that he created an engine, rocket and projectiles running on fuel, S.P.Korolyov (chief constructor) rocket-space to mention the great contribution to the technique (Cosmonautics needed).

One of the main tasks of upbringing is the Mental of students and consists in preparing for physical labor. Labor in this let it remain the first life requirement [6].

The basis of labor education in the process of teaching physics consists of a polytechnic education, the production of students gets acquainted with the leading networks. Physical foundations of various production processes of machines and tools learn.

The perfection and compactness of physical theories and fundamental experiments in physics lessons, human thought aesthetic of learners by showing beauty and strength it is necessary to form. Physical issues solving in a compact and rational way, visual and rational demonstration of experiments and tools beautiful, compact showing that it is prepared, as well as teaching students to write beautifully and orderly in their notebooks, to prepare their homework perfectly, laboratory work is also always getting used to doing clearly and beautifully is great in aesthetic education of importance.

## METHODOLOGY

The tasks of the physics course in the implementation of polytechnic education are mainly the following [7]:

- Present-day industry and Agriculture of students

Introduction to the physicprincips of production



Development of scientific and technical thinking on the basis of;

— in solving physics and technology problems of student's ability to apply theoretical knowledge (skills) formation;

-the most used control in students-measurement control instruments, energy sources build skills and competencies to be able to apply;

- formation of the personal qualities of students, their full attitude to work, nature and technique, their initiative.

a) of physical phenomena and laws by the grower explanation of applications;

b) the principles of operation of mechanical devices demonstration in the experiment;

d) show Motion Pictures and TV movies with physical and technical content;

e) organizing excursions to production;

g) Organization of independent observations of adolescents;

h) laboratory work related to the study of technical instruments performance;

i) to read out-of-Class popular literature on physics and technology and to exhibit them at school organization.

The formation of practical skills and competencies of 0 'workers is one of the main tasks of polytechnic education.

The effectiveness of the formation of skills and competencies ways to increase include:

1) to increase the number of laboratories works using previously studied instruments;

2) short-term, which is reflected in different devices conducting frontal experiments;

3) working with handouts;

4) the skills and competencies of the learners during the lesson checking regularly;

5) from a class that depends on the application of various instruments extracurricular activities.

One of the functions of polytechnic education is to develop the scientific and technical thinking of students. One of the tools for such development is the development of adolescents of closely related (similar) mechanisms and machines

it consists of being able to find similar and different sides.

The second self-specific mental characteristic of the physics teaching process consists of: physics from more models in learning and from different viewpoints (formula, electricity signs of chain elements,) are used and from reader-to-character images to real objects and vice versa, from the perception of inverse-real objects to the ideal construction and it is required to carry out the transition to their iconic images.

The third characteristic characteristic of the physical unit process is the use of Experimental Demonstration, the organization of observations of adolescents, independent of their practical work is the high sensitivity associated with performance.

That students are interested in knowing scientific knowledge and as the main factors for the development of research skills, the following can be indicated:

- statement of the study material in a scientific and rigorous system;



- to form and put a problematic situation in the lesson engaging those to solve the problem;
- by organizing independent work of students in the lesson go;
- with the completion of tasks in the creative character;
- tell classmates what students learned from popular science literature about the issues they were interested in creating conditions for giving;
- for students to find answers to their questions by reading literature, watching movies and TV movies and independently observing the phenomena of nature and technology.

To create a deep and solid interest in science activating students ' thinking skills and attention, knowledge in the context of scientific and technological revolution applying methods that help to understand the importance needed.

Education of students ' interest in science has many helps them solve technical issues.

Physicists — concepts, laws, hypotheses and consists of a system of theories. Laws, theories represent connections between concepts. Concepts serve as a means of studying the surrounding being.

One of the multifaceted activities of the 0 'ticker is in adolescents the formation of physical concepts occupies a large role.

This one of the most complex works, it requires a deep knowledge of philosophy, logic, psychology and pedagogy makes.

Understanding is the main form of thinking. Any thought is expressed in concepts. All other thinking forms-judgments and conclusions are composed of concepts. The concept is also the foundation of thought at the same time, is also a peak, the initial material of judgment and Conclusion, and the final result.

The concept is closely related to the word: it is a word is represented by and is strengthened in it. The word is the material carrier of the concept.

The Concept i a fundamental and high form of thinking, it I generalization of phenomena and things of the material world and their main characters, separated by abstraction, are ensures that properties and relationships are reflected in the mind.

How is the concept formed in a person's mind? How does a thinker understand? The mechanism of this process, its directions and main stages how? These are the first-level questions for the 0 ' player is.

The concept is not formed at once in the consciousness of a person; the emergence, development of the concept in the individual consciousness is long, is an infinite process; that there is no limit to knowing the world like, it has no limits.

The main source in the formation of concepts — material the world Implementation of interdisciplinary pedagogy is one of the important challenges facing. Major scientific solving research and complex technical issues is one the combined complex search of several disciplines is carried out as a result. As a result of the needs of practice, the integration and differentiation of sciences arose.

By increasing the subject interethnic bond to am AI to increase the level of knowledge of students, the correct formation of a scientific worldview, the ability to think, conditions are created for the development of their creative abilities, the improvement of the entire educational process.



### **Conclusion**

Subject interethnic binding performed Polytechnic effect it also plays a big role in raising. Because too much technology processes based on knowledge gained from several disciplines it is possible to descend. Hence, the production of pupils the subject of their understanding of the moons of tam is interethnic it is achieved by making a link. For example, by electrolysis, one can only find out the knowledge gained from physics and chemistry

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