What is Physics?

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Physics is a fundamental science that is part of the natural sciences.

When a high school student studying physics is asked this question, the response is often that physics is a subject filled with formulas and based on mathematics. Unfortunately, mistakes in physics education lead to this preconception. Exam-oriented learning also plays a significant role in the formation of these views among students.

Richard Feynman (1918-1988), one of the most important and influential physicists of the 20th century, left a mark on the history of physics, particularly with his contributions to theoretical physics and his unique teaching style. According to Feynman, physics is an intellectual and creative adventure aimed at understanding nature.

Here are a few key ideas summarizing Feynman's view of physics:

- 1. A Tool for Understanding Nature: Feynman saw physics as the most effective way to understand how the universe works. For him, physics is about revealing the laws of nature and discovering the depths behind these laws.
- 2. **Curiosity and Asking Questions:** Feynman emphasized that physicists are curious people who constantly ask "Why?" and "How?" He viewed physics as a process of discovery and always encouraged his students to question and be inquisitive.
- 3. **Discovering Reality:** Feynman believed that physics goes beyond our everyday observations. Through theories supported by experiments and observations, physics reveals the deep and complex structure of the universe.
- 4. **The Importance of Mathematics:** Feynman stated that the mathematical language of physics is the most precise and effective way to describe the universe. Mathematics is an indispensable tool for explaining and predicting physical phenomena.
- 5. **The Fun of Science:** According to Feynman, physics is a fun and creative process. He often expressed how much enjoyment he derived from doing physics. This joy is intertwined with the excitement of learning new things and discovering.



The famous physicist **Albert Einstein (1879-1955)** also did not view physics merely as formulas and experiments. He, too, saw physics as a process of understanding the fundamental laws of nature. With his famous saying, "God does not play dice," Einstein expressed his belief that there are definite rules governing the workings of the universe. He emphasized that physics is a process of discovering these rules. According to Einstein, a scientist should always try to understand nature by continuously asking questions and maintaining their curiosity. He believed that this process was not limited to problem-solving or conducting experiments in a laboratory. His famous saying, "Imagination is more important than knowledge," clearly reflects this viewpoint.



One of the most effective ways to make physics fun within an intellectual learning process is **STEM**. Through STEM, young inquisitive explorers can realize the fun side of science in their journey to understand the universe. They will be able to dream and apply their dreams through STEM. STEM plays a crucial role in physics education.

References

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