

Law of Conservation of Energy

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In the last segment we learnt about **potential energy**. In this segment, we are going to learn about the law of conservation of energy.

Law of Conservation of Energy

It states that energy can only be converted from one form to another; it can neither be created nor destroyed.

We know that mechanical energy is nothing but the sum of potential and kinetic energy.

Mechanical Energy = Potential Energy + Kinetic Energy

Thus, in situations involving mechanical energy the sum of potential and kinetic energy will always be constant. Let us try to understand this with the help of an example.

Example: A boy released a water balloon from the fourth floor of the apartment. Before releasing the balloon it has potential energy stored in it due to height, now as it falls the potential energy is converted into kinetic energy.

Also, regardless of the potential energy or kinetic energy increasing or decreasing in any situation, the mechanical energy will be of the same value. This is the law of conservation of energy.

Summary

Law of conservation of energy	It states that energy can only be converted from one form to another; it can neither be created nor destroyed.
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What's next?

In our next Class 9 Science segment, we shall learn about **Power**.