THERMODYNAMICS

FIRST LAW OF THERMODYNAMICS

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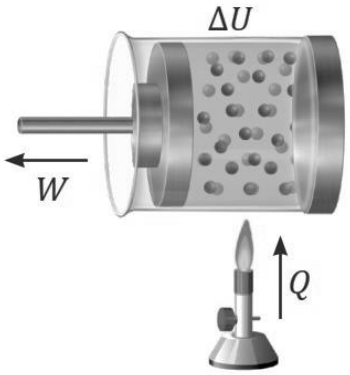
The first law of thermodynamics is all about saving energy. It tells us that if we consider heat as a type of energy, then the total energy in a system and its surroundings always stays the same. Energy can move between a system and its surroundings, but it can't magically appear or disappear.



Mathematically,
$Q = \Delta U + W$

Where,
Q = Heat supplied to the system by the surroundings

W = Work done by the system

ΔU = Change in the internal energy of the system