

6.2: Kinetic Energy and the Work-Energy Theorem

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Def: Kinetic energy is the energy a particle possesses due to its speed and mass, and is defined by $K = \frac{1}{2}mv^2$. It is a scalar quantity.

Theorem: The Work-Energy Theorem states that work is the change in a particle's kinetic energy, $W = K_1 - K_0 = \Delta K$. This means that kinetic energy is the total work done to a particle to get it to its present speed from rest.