Name _____

Unlocking Energy: Understanding Potential and Kinetic Energy

Short Answer Key

1. Potential energy is the energy an object possesses due to its position or condition. An example is a stretched rubber band, which has elastic potential energy.
2. Potential energy is "stored" energy related to an object's position or condition, while kinetic energy is "active" energy linked to its motion, speed, and mass.
3. When you lift a book and then drop it, its potential energy is transformed into kinetic energy as it falls due to gravity.
4. PE = mass × gravitational acceleration × height

   PE = 5 kg × 9.8 m/s^2 × 10 m = 490 J (joules)

5. Example: A moving car possesses kinetic energy.