Name: Date:

Work and Kinetic Energy Lab

Purpose:

Definitions:

Work:

Kinetic Energy:

Section 1: Factors that Determine the Energy Added to an Object (Work)

Part 1: Work and Displacement

Mass (kg)	
Force (N)	
Δx (m)	Work (J)
Graph Type:	
Equation:	

Part 2: Work and Force

Mass (kg)	
Δx (m)	
Force (N)	Work (J)
Graph Type:	
Equation:	

Part 3: Work and Mass

Force (N)	
Δx (m)	
Mass (kg)	Work (J)
Graph Type:	
Equation:	

The energy given to an object has nothing to do with:

The energy given to an object is given by:

Name: Date:

Section 2: Factors that Determine the Kinetic Energy of an object

Part 4: KE and Velocity

Mass of Object (kg)	
Velocity (m/s)	Kinetic Energy (J)
Graph Type:	
Equation:	

Part 5: KE and Mass

Velocity (m/s)	
Mass (m/s)	Kinetic Energy (J)
Graph Type:	
Equation:	

The kinetic energy of an object depends on the _____ of the object and the _____ of the object. Doubling the _____, doubles the Kinetic Energy. Doubling the _____, _____ the Kinetic Energy.

The formula for KE is:

Derivation of the KE formula: