

Name _____ Date _____ Period _____

Popper Lab

Purpose

To examine the energy transfers present in a toy popper.

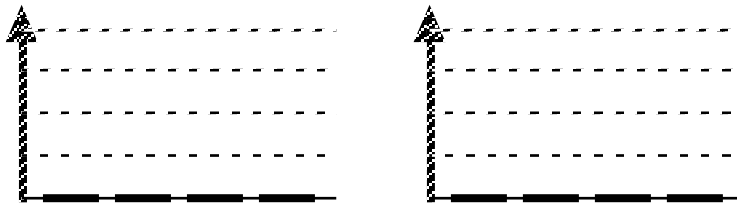
Pre-Lab Questions

What does the popper do?

What energy types are present when you drop the popper?

Draw an energy bar graph and write the energy equations that describe the transfer from KE to GPE.

$$\begin{array}{l} \text{Initial Energy + work} \\ \text{KE + GPE + EPE + W} \end{array} = \begin{array}{l} \text{Final Energy} \\ \text{KE + GPE + EPE + Heat} \end{array}$$



In the above equations, what variables can be directly measured?

In the above equations, what variables can be calculated?

Data and Calculations

Part 1. How much energy is stored in your toy?

Data Table

Values that only need to be measured once:

Values that need repeat measurements:

Trial 1	
Trial 2	
Trial 3	
Trial 4	
Trial 5	

Calculations (Show averages and calculations of energy here)

Part 2. Predict the velocity

Part 3. Energy losses

Where could your toy "lose" energy? How do you know? How could you test your prediction in Part 2.