Potential & Kinetic Energy: Student Activity Sheet

Name:_____ Date:_____

Part 1: Height & Kinetic Energy

Record your data below

Ramp Height	Trial 1	Trial 2	Trial 3	Median
_____ mm				
_____ mm				
_____ mm				

How did the height affect the distance the card traveled? Support your claim with evidence. _____

_____

Give examples of potential and kinetic energy from this activity.

_____

_____

Part 2: Mass & Kinetic Energy

You will be working with 3 different balls: wood, glass, & steel. The wood ball weighs 1.5g. The glass ball weighs 4.8g. The steel ball weighs 16.3g.

Prediction: Which ball will push the card the furthest? Which ball will push the card the shortest distance? How far do you expect them to go? Record your predictions below

_____

_____

Record your data below. The ramp height is 100mm for each trial.

Ball Type	Trial 1	Trial 2	Trial 3	Median
Wood (1.5g)				
Glass (4.8g)				
Steel (16.3g)				

How did the mass of the ball affect the distance the card traveled? _____

_____

How did the results compare to your predictions? _____

Part 3: Hit your mark

Use the table below to help complete your challenge. The difference is recorded as the difference between how far the card actually traveled and how far the card **needs** to travel. For example, if the card went 460mm and I need it to go 570mm, the difference is 110mm. Your goal is for the difference to be 10mm.

Ramp Height (mm)	Distance the card traveled (mm)	Difference (mm)

What ramp height caused the index card to travel 570-590mm? _____