Name _____ Period _____ Date _____

Lesson 2: What Determines the Amount of Kinetic Energy?

Activity 2.1

Your Progress:

- Mastery
- Proficient
- Developing
- Beginning

Purpose

Conduct an experiment in which you find what factors affect the amount of kinetic energy in an object.

✚ Safety

Use the canned goods as directed in the lab. Failure to do so may cause them to break open.

Word Wall:

Experiment: _____

Kinetic energy: _____

Variables for Experiment 1

What is the independent variable (manipulated variable) for this experiment?

_____

What is the dependent variable (measured/ responding variable) for this experiment?

_____

What are the controlled variables (variables that stays the same) for this experiment? (State at least 3)

_____

_____

Data Table for Experiment 1

Use this data table to record the measurements from your experiment:

Speed	Starting Thickness (mm.)	Ending Thickness (mm.)	Amount of "Squish" (KE) (mm)
Drop			
Throw			

Variables for Experiment 2

What is the independent variable (manipulated variable) for this experiment?

_____

What is the dependent variable (measured/ responding variable) for this experiment?

_____

What are the controlled variables (variables that stays the same) for this experiment? (State at least 3)

_____

_____

Data Table for Experiment 2

Use this data table to record the measurements from your experiment:

Mass	Starting Thickness (mm.)	Ending Thickness (mm.)	Amount of "Squish" (KE) (mm)
Light			
Heavy			

Analysis

1. The _____ and _____ an object, the **MORE** kinetic energy it has.

2. Which was easier to keep constant- mass or speed? Why?

_____

_____

_____

3. How would accuracy of the experiment change in you measure the change in thickness in multiple places on the clay instead of just one place?

_____

_____

_____