

Lesson 6: What Happened to the Kinetic Energy When We Dropped the Can on the Clay?

Activity 6.3

Purpose

You will collect data as a class to determine: *What happens to kinetic energy when something falls?* A can of baked beans will be dropped 30 cm. onto a ball of clay. Inside the ball of clay is a temperature probe. After the can is dropped, the clay will be rotated one quarter. This process is to be repeated. With each drop we would like to measure if the temperature of the clay changes.

Variables

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

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

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

Data

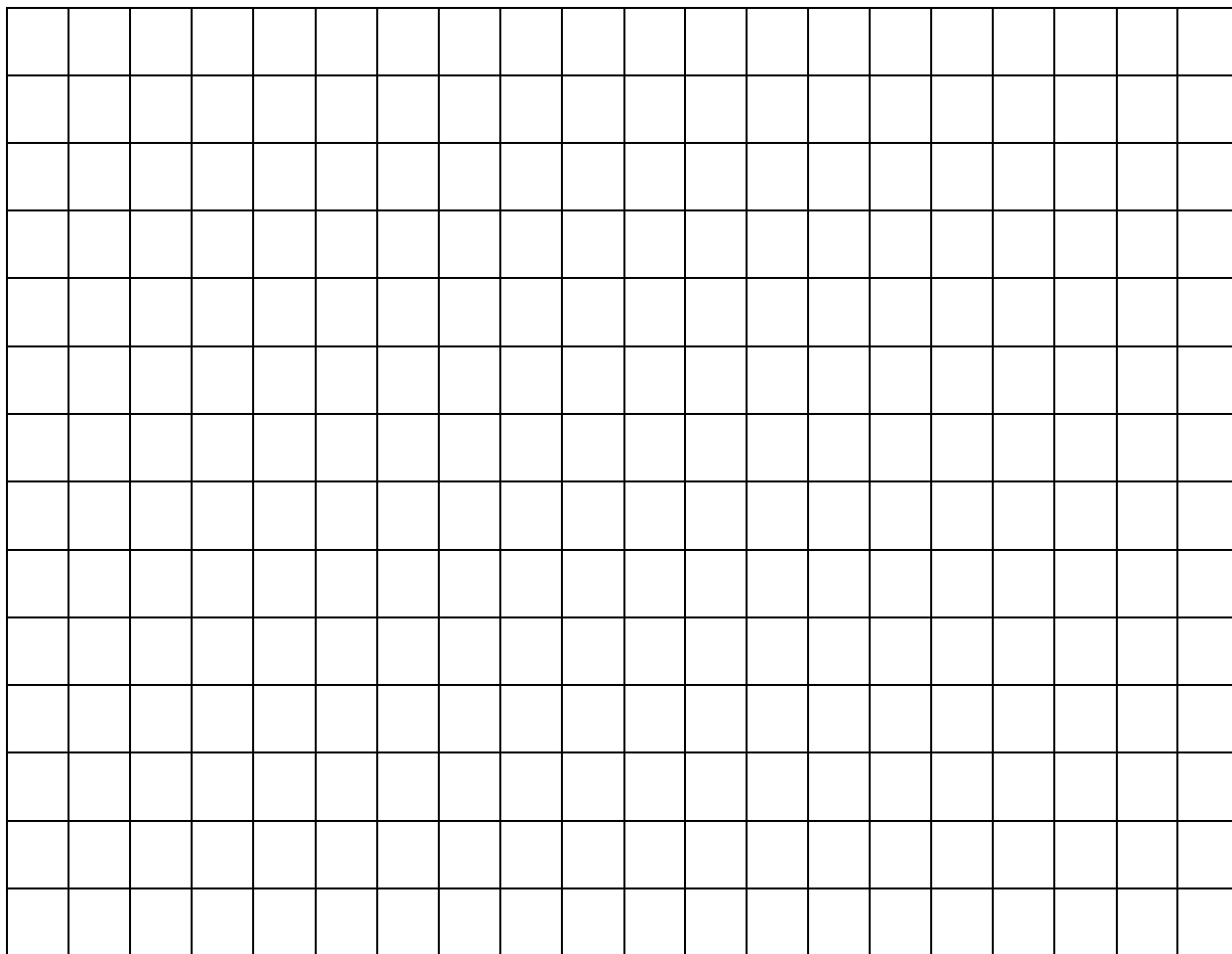
Drop #	Temperature (°C)	Drop #	Temperature (°C)	Drop #	Temperature (°C)
Initial		7		14	
1		8		15	
2		9		16	
3		10		17	
4		11		18	
5		12		19	
6		13		20	

Your Progress:

- Mastery
- Proficient
- Developing
- Beginning

Graph

Use this grid to create an appropriate graph of your data. Be sure that the graph has all of the correct parts.



A student makes the following claim: *Gravitational energy converts to kinetic energy when the baked beans can falls. When the baked bean can hits the ground, the kinetic energy disappears.*

Is the student's claim correct? Why or why not? What **evidence** (DATA) do you have to support or refute the student's claim?
