

Catapult Experiment Report

Team Members:

	Distance from Mark (in.)	Cumulative Distance
Trial 1	X	X+Y+Z
Trial 2	Y	
Trial 3	Z	

Describe how this applies to Newton's 3rd Law?

What is the net force on a 200g ball when it hits a wall with an acceleration of 10 m/s^2 ?

On the back of this page describe: A group of students are playing kickball at the local elementary school. As they come out onto the playground, they find two soccer balls lying on the grass perfectly still. They notice during their game that if they kick the two balls with the same force, the lighter ball has a greater acceleration than the heavier ball. They also notice that as they kick the ball around, it causes their toes to burn. Explain all three of Newton's Laws of Motion using this example.

Fill in the correct answer codes



For every action, there is an equal and opposite reaction

Acceleration of an object is proportional to the net force on it & inversely proportional to its mass

We run by pushing the ground with our feet in the opposite direction. This is due to:

An object will move at a constant speed in a straight path until a net force acts upon it.

Jim improved his lap timing by changing to a lighter bicycle. This is due to:

Jim can throw the ball further than Bill because he is stronger and applies more force. That's:

Jill crashed her bike into the fence. She was thrown over it onto the lawn. That's:

When the fireman turns on the fire hose, he is knocked back. This is due to:

A

Newton's First Law of Motion

B

Newton's Second Law of Motion

C

Newton's Third Law of Motion