Crash Cushion Design Challenge

Name: _____   Period: _____

Purpose: How can we design a crash cushion to reduce the forces that act on a vehicle during a collision with a wall?

Research: What did you learn about Newton's 3rd law of motion that you can incorporate into this design?

Prelab questions:

 What are the Control Trials?

What are the Experimental Trials?

What is the Independent Variable?

What is the Dependent Variable?

How will you know whether your crash cushions are effective at reducing the impact forces felt by the cart?

Brainstorm ideas: (include drawing of design)

Collect Data:
Acceleration: _____
Displacement: _____
Velocity: _____

Analysis:
What worked well?   What will you change?

Improve: (Include ideas or drawings on how you will improve your design)

Collect Data:
Acceleration: _____
Displacement: _____
Velocity: _____

Did the Crash Cushions help in reducing the impact acceleration of the crash? Which Crash Cushion was more effective?