Name: Date: Period:

Egg Drop Lab

Goal: We will be dropping your egg from the balcony in the commons. Your goal is to design a device that will prevent the egg from breaking.

1 Pre-Lab

1. The egg will break if too much force is applied to it. Therefore, your device should attempt to decrease the amount of force applied to the egg. Consider the impulse-momentum theorem. Which two **physics quantities** affect the amount of force that the egg feels? How does each quantity affect it?

2. Design a device that you think will keep the egg from breaking. Sketch your device. Don't forget, **you must be able to access your egg without destroying your device**. You will have to prove that it survived the preliminary drop before you are given the opporutunity to do the big drop.

3. Explain how your device addresses what you discussed in #1.

2 The Drop

4. Explain what happened. Were you successful?

3 Conclusion

5. After the drop write a paragraph addressing the following (thoroughly explain each):
   (a) Explain your design and how you expected it decrease the force
   (b) Explain what happened and why you got the results you did.
   (c) Explain what you could do differently to improve your design for next time