**Egg Drop Lab Assessment**  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Objective: To have an egg contained in an apparatus designed from 3 pieces of construction paper and tape survive a drop from the ceiling.*

Introduction:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1)Explains the concepts of Impulse & Momentum, Force and Time, and establishes a relationship between all terms  2)Provides a relevant example of impulse-momentum theorem other than the egg drop. | Omitted (0 points)  ...response provided little or no description of the concepts listed. Student did not adequately establish a relationship between all terms.  ...no alternate example provided | Attempted (2 points)  ...explanation is clear enough that the concepts can be at least partially understood. Significant missing or unclear elements hamper understanding. | Near Mastery (3 points)  ...explanation is clear enough that the concepts can be mostly understood. At most, one significant missing or unclear element is omitted or unclear.  ...important details could be missing | Mastery (4 points)  ...explanation provided a comprehensive and well-rounded description of the concepts listed. A relationship between all terms is clearly written and fully described.  ...alternate example stated clear enough so that the reader has confidence the student understands the theorem |

Example:  
Concepts and Relationship: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Example of Impulse-Momentum Theorem: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Experimental Design/Conclusions:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1)Lists and explains the purpose of 2 components of design using physics concepts  2) Explains 2 malfunctions that caused problems (or could have in the event of unbroken egg).  3) Discusses 2 modifications of design for more trials. | Omitted (0 points)  ...no explanation of components provided  ...response did not describe any malfunctions of design  … no modifications of design identified | Attempted (2 points)  … only 1 component identified  … 1 malfunction described  … 1 modification described | Near Mastery (3 points)  … response provides explanation of 2 design components  ...response identifies 2 malfunctions  … response includes 2 modifications | Mastery (4 points)  ...response provided the purpose of 2 design components and clearly explains this purpose using scientific concepts  ...response clearly identifies and explains 2 malfunctions/potential malfunctions of each of the design components  …response thoroughly outlines the 2 modifications and the purpose of each modification to ensure further success |

Example:

Design Feature #1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Purpose of Feature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What modification(s) could you make to this feature to ensure future success: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_