|  |  |
| --- | --- |
|

|  |
| --- |
| **Adkins EGG-celent Egg Drop Project**Student Name:     \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |

 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CATEGORY | **5** | **4** | **3** | **1** |
| **Egg Container** ***(EC score = x2)*** | Eggs survive with no cracks; container meets all requirements  | Eggs survive with small cracks but no mess; container meets all requirements  | Eggs sustain large cracks with some mess; container meets all requirements  | Eggs do not survive and make a big mess; Humpty Dumpty |
| **Components of the report** ***(score = points received X 1)*** | All required elements are present and additional elements that add to the report (e.g., thoughtful comments, graphics) have been added.  | All required elements are present.  | One required element is missing, but additional elements that add to the report (e.g., thoughtful comments, graphics) have been added.  | Several required elements are missing.  |
| **Procedures** ***(score = points received X 1)*** | Procedures are listed in clear steps. Each step is numbered and is a complete sentence.  | Procedures are listed in a logical order, but steps are not numbered and/or are not in complete sentences.  | Procedures are listed but are not in a logical order or are difficult to follow.  | Procedures do not accurately list the steps of the experiment.  |
| **Data** ***(score = points received X 2)*** | Professional looking and accurate representation of the data in tables and/or graphs. Graphs and tables are labeled and titled.  | Accurate representation of the data in tables and/or graphs. Graphs and tables are labeled and titled.  | Accurate representation of the data in written form, but no graphs or tables are presented.  | Data is not shown OR is inaccurate.  |
| **Calculations** ***(score = points received X 4)*** | All work is shown and the results are correct and labeled appropriately.  | Some work is shown and the results are correct and labeled appropriately.  | Some work and the results labeled appropriately.  | No work is shown OR results are inaccurate or mislabeled.  |
| **Conclusion** ***(score = points received X 2)*** | Conclusion includes whether the findings supported the hypothesis, possible sources of error, and what was learned from the experiment.  | Conclusion includes whether the findings supported the hypothesis and what was learned from the experiment.  | Conclusion includes what was learned from the experiment.  | No conclusion was included in the report OR shows little effort and reflection.  |
| **Drawings/Diagrams** ***(score = points received X 1)*** | Clear, accurate diagrams are included and make the experiment easier to understand. Diagrams are labeled neatly and accurately.  | Diagrams are included and are labeled neatly and accurately.  | Diagrams are included and are labeled.  | Needed diagrams are missing OR are missing important labels.  |
| **Usage** ***(score = points received X 1)*** | One or fewer errors in spelling, punctuation and grammar in the report.  | Two or three errors in spelling, punctuation and grammar in the report.  | Four errors in spelling, punctuation and grammar in the report.  | More than 4 errors in spelling, punctuation and grammar in the report.  |
| Total out of a possible 60 points |  |

|  |
| --- |
| **Adkins EGG-celent Egg Drop**1. Each student is required to turn in their own rubric, questions, etc. You may only turn in one project IF you worked together.
2. Project is due **4/23/19**

Goal Design and build a container that will protect delicate cargo (an egg) under stressful landing and accident conditions. You will first drop your project from an 8 foot drop. If you survive the 8 foot drop, you will move on to the next round, (13 foot)! Can you survive?? Each student is required to turn in their own rubric, questions, etc. You may only turn in one project IF you worked together.Key Question Based on the fragility of an egg, what materials and design concepts need to be considered to protect an egg during a drop from over 3 m? Preparation Collect Possible Materials Construct a container to protect the egg from a fall off the top of the bleachers. Required Materials * Egg
* Container to protect egg

Construction * The device must be of original design.
* It can be constructed of any school appropriate material that the team feels appropriate and can obtain, including material recycled from other products.
* Upon the initial release of the device, it must be able to fit within a 12" x 8” container (a regular sized shoe box). Once the device is released, it may take on any shape or size.
* There will be no physical contact with the device once it has been released.
* The raw egg must be put into the design on the day of the competition. The design must allow for easy opening and inspection of the egg. Opening and closing of the packages will be accomplished in the same period of time for all contestants (2 minutes).
* Repairs requiring additional materials will not be allowed once the competition has begun.
* No glass containers.
* Be prepared to clean up any mess, if necessary.

Suggested Materials (just a sample of possible materials) You can use other materials, just get them approved withMrs. Adkins first.* 8 1/2 X 11 paper
* Tape
* Cardboard
* Balsa wood
* Rubber bands
* String
* Feathers
* Glue
* Straws
* Plastic wrap
* Bubble wrap
* Toothpicks
* Cotton balls
* Marshmallows
 |