**Engineering Design Process Rubric**

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| --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** |
| **Design includes a polygon (s)** | The design includes one polygon. | The design includes the construction of at least one polygon and a rationale for choosing that particular polygon(s). | The design includes the construction of at least one polygon and a rationale for choosing that particular polygon(s) and a reflection as to how the stick could be redesigned / improved to include other polygons. | The design includes the construction of at least two polygons and a rationale for choosing those particular polygon(s) and a reflection as to how the stick could be redesigned / improved. |
| **Tests were correctly administered** | One of the tests were administered, but not administered correctly. | Both of the two tests were administered. One was administered correctly. | Both of the tests were administered correctly and the data was recorded. | Both tests were administered correctly, data was accurately recorded, and the tests were documented using pictures, etc. |
| **Scatterplots** | A scatterplot was created for one of the test and includes all of the data.  Or  Scatterplots were created for both tests, but do not include all of the data for that test. | Scatterplots were created for both tests including all of the data. A description of how the variables are related is included, but not correct. | Scatterplots were created for both tests, including all of the data as well as a description as to how the variables are related for one of the tests. | Scatterplots were created for both tests, including all of the data as well as accurate description as to how the variables are related for both tests. |
| **Forces** | Some of the tension or normal force questions were answered, but not correctly. | All of the tension and normal force questions were answered in the lab notebook. | All of the tension and normal force questions were answered correctly and include explanations. | All of the tension and normal force questions were answered correctly and include explanations. Diagrams were also included and labeled correctly. |
| **Research** | Research was completed, but on less than half of the polygons. | Research was completed for all of the polygons. | Research was completed for all of the polygons and an accurate rationale is included for the one polygon that was chosen for the design. | Research was completed for all of the polygons and an accurate rationale is included. Multiple polygons are included in the design. |