Overall Score:

Activity:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

STEM Rubric

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Innovation | **-**5**-  Super Fantastic!** (extra credit) | **-**4**-**  **Excellent** | **-**3**-**  **Satisfactory** | **-**2**-**  **Approaching** | **-**1**-  Needs Improvement** |
| Novelty | So unique it won’t be trendy for 2 more years. | Entirely new & different. | Major changes from the example build. | Moderate changes to example build. | Only minor changes to example build. |
| Design Revisions | So many prototypes that the prototypes have prototypes. | Many unique solutions tested, exploring very different ways to solve the problem. | Many attempts to refine a few solutions, with significant changes from original design. | Many attempts to refine the example build, or a few attempts towards a single unique solution. | Few attempts to refine the example build. |
| Success Through Failure | Probably ended up in a YouTube fail comp but kept trying anyway. | Took large design risks, made mistakes, persevered, and learned from them. | Took large design risks, made mistakes, persevered, and learned from them. | Took small risks or did not persevere when larger risks were taken. | No risky designs attempted. |

Innovation  
(16 Points)

Page 1 Score \_\_\_\_\_\_ / 16

**Comments:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
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**Comments:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Performance | **-**5**-  Super Fantastic!** (extra credit) | **-**4**-**  **Excellent** | **-**3**-**  **Satisfactory** | **-**2**-**  **Approaching** | **-**1**-  Needs Improvement** |
| Design Performance | Works so well it should be employee of the month. | Design performed better than the most others. | Design performed on par with most others. | Design performed somewhat behind most others. | Design performed much worse than others. |

Performance  
(4 Points)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Math & Science | **-**5**-  Super Fantastic!** (extra credit) | **-**4**-**  **Excellent** | **-**3**-**  **Satisfactory** | **-**2**-**  **Approaching** | **-**1**-  Needs Improvement** |
| Data-Driven | They crunched the numbers so hard they’re now a fine powder. | Isolated and tested a few variables, using data to improve the design. | Isolated and tested several variables. | Used data to evaluate design, but rarely isolated a variable. | Design changes were done without regard for data. |
| Science Based | Learned so much science that they schooled the teacher. | Research was carried out to learn and apply scientific theories to the design, clearly improving the design’s performance. | Scientific theories guided the design and clearly improved the design’s performance. | Scientific theories used to guide design but did not improve performance. | Science did not guide design. |

Math & Science  
(8 Points)

STEM Rubric  
(continued)

**Comments:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Craftsmanship | **-**5**-  Super Fantastic!** (extra credit) | **-**4**-**  **Excellent** | **-**3**-**  **Satisfactory** | **-**2**-**  **Approaching** | **-**1**-  Needs Improvement** |
| Craftsmanship | Looks so good it should be in a Home Depot commercial. | “Final” design is neatly crafted and uses all components purposefully. | “Final” design is neat and uses most components purposefully. | “Final” design is somewhat sloppy OR shows little care in choosing or placing components. | “Final” design is sloppy AND shows little care in choosing or placing components. |
| Precision | It’s so reliable that it made Old Faithful jealous. | “Final” design performs reliably and consistently, no matter who is operating it. | “Final” design performs reliably and consistently. | “Final” design has sporadic problems or inconsistencies. | “Final” design does not work reliably. |

Construction  
(8 Points)

**Comments:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
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Teacher Notes:

You can use this rubric to assess any TeacherGeek activity.

Here’s how to compute grades for your choice of a **4-Point Scale** or **100-Point Scale**:

**4-Point Scale:** add the points earned and divide by 8 (to take the average)

**100-Point Scale:** add up the points earned, and convert using a table below

**100-Point Scale Conversion Tables:**

|  |  |
| --- | --- |
| **Points** | **Percent** |
| 8 | 70 |
| 9 | 71.25 |
| 10 | 72.5 |
| 11 | 73.75 |
| 12 | 75 |
| 13 | 76.25 |
| 14 | 77.5 |
| 15 | 78.75 |
| 16 | 80 |
| 17 | 81.25 |
| 18 | 82.5 |
| 19 | 83.75 |
| 20 | 85 |
| 21 | 86.25 |
| 22 | 87.5 |
| 23 | 88.75 |
| 24 | 90 |
| 25 | 91.25 |
| 26 | 92.5 |
| 27 | 93.75 |
| 28 | 95 |
| 29 | 96.25 |
| 30 | 97.5 |
| 31 | 98.75 |
| **32** | **100** |
| 33 | 101.25 |
| 34 | 102.5 |
| 35 | 103.75 |
| 36 | 105 |
| 37 | 106.25 |
| 38 | 107.5 |
| 39 | 108.75 |
| 40 | 110 |

Easy Grading

Challenging Grading

|  |  |
| --- | --- |
| **Points** | **Percent** |
| 8 | 60 |
| 9 | 61.67 |
| 10 | 63.33 |
| 11 | 65 |
| 12 | 66.67 |
| 13 | 68.33 |
| 14 | 70 |
| 15 | 71.67 |
| 16 | 73.33 |
| 17 | 75 |
| 18 | 76.67 |
| 19 | 78.33 |
| 20 | 80 |
| 21 | 81.67 |
| 22 | 83.33 |
| 23 | 85 |
| 24 | 86.67 |
| 25 | 88.33 |
| 26 | 90 |
| 27 | 91.67 |
| 28 | 93.33 |
| 29 | 95 |
| 30 | 96.67 |
| 31 | 98.33 |
| **32** | **100.00** |
| 33 | 101.67 |
| 34 | 103.33 |
| 35 | 105 |
| 36 | 106.67 |
| 37 | 108.33 |
| 38 | 110 |
| 39 | 111.67 |
| 40 | 113.33 |

8 is the minimum points for kids that complete the project

Scores greater than 100 are possible if you award scores of 5 (extra credit)