|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **5 points** | **10 points** | **15 points** | **20 points** |
| **Webquest**  **Research** | Used one of the websites provided for research. | Used 2 of the 4 of the websites provided for research. | Used 3 of the 4 of the websites provided for research. | Used all of the websites provide in the research. |
| **Journal** | Included 1 of the 4 questions. \*What is potential energy?  \* What is kinetic energy?  \* How does a roller coaster work using potential and kinetic energy?  \* List the factors that must occur for the roller coaster to work using only potential and kinetic energy. | Included 2 of the 4 of the following questions:  \*What is potential energy?  \* What is kinetic energy?  \* How does a roller coaster work using potential and kinetic energy?  \* List the factors that must occur for the roller coaster to work using only potential and kinetic energy. | Included 3 of the 4 of the following questions:  \*What is potential energy?  \* What is kinetic energy?  \* How does a roller coaster work using potential and kinetic energy?  \* List the factors that must occur for the roller coaster to work using only potential and kinetic energy. | Included all of the following:  \*What is potential energy?  \* What is kinetic energy?  \* How does a roller coaster work using potential and kinetic energy?  \* List the factors that must occur for the roller coaster to work using only potential and kinetic energy. |
| **Prototype** | Did not create a prototype of a roller coaster. | Created an incomplete prototype of a roller coaster. | Created a non-working prototype of a roller coaster. | Created a working prototype of a roller coaster. |
|  | **10 points** | **20 points** | **30 points** | **40 points** |
| **PowerPoint** | Included 2 or fewer pages and listed criteria for the PowerPoint. Or include all of the pages and little of the criteria listed. | Included 3 or 4 of the 6 pages and listed criteria for the PowerPoint. Or include all of the pages and some of the criteria listed for each page. | Included 5 of the 6 pages and listed criteria for the PowerPoint. Or include all 6 pages and most of the criteria listed for each page. | Included all 6 pages and listed criteria for the PowerPoint.  **Title page**: Include your group member’s names. List how each group member participated in the project.  **Goals page:** Write three goals for your project.  **Concept page**: Write the concept behind your roller coaster design. Why did you choose your design for your roller coaster?  **Design page**: Describe what the exhibit would look like, the size of the exhibit, and if it is accessible to all visitors.  **What we learned page**: Include the information recorded in your journal from step 3.  **Reference page**: List links or URL addresses to the websites you used during your research |
|  |  |  |  | Total Points Earned /100 |

**Rubric for Roller Coaster Prototype Design Project**