Power Car

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<th>Name(s):</th>
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### NGSS GOALS

<table>
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<tr>
<th>BRONZE</th>
<th>SILVER</th>
<th>GOLD</th>
<th>PLATINUM</th>
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#### 1. Student work related to this Crosscutting Concept:

In this project, we made predictions and observed our power car move up a hill with different wheel and gear combinations.

**Stability and Change:**

Explain stability and change in designed systems by examining changes over time.

- We predicted how much time it would take power cars A and B to drive up the ramp.
- We wrote our predictions and test results on our Student Worksheet.
- We met Bronze.
- We completed our predictions and test results for power cars C and D.
- We met Silver.
- We predicted and tested at least two of our power cars with the sled pull experiment.
- We met Gold.
- We proposed and completed at least two additional experiments to test the motion of our power car on the ramp or in the sled pull experiment.

#### 2. Student work related to this Practice:

In this project, we built a power car with different wheel and gear combinations. We used it in a hill climb experiment and a sled pull experiment.

**Developing and Using Models:**

Use a model to generate data to test ideas about designed systems.

- We built power cars A and B that moved by battery power.
- We practiced running power cars A and B on the ramp for fair testing.
- We met Bronze.
- We changed wheels and gear combinations for power cars C and D.
- We used fair testing in all of our hill climb experiments.
- We met Silver.
- We built the sled for pulling books or other objects.
- We used our power car in our sled pull experiments.
- We met Gold.
- We completed the building necessary to test one or two new ideas for the sled pull experiment.

#### 3. Student work related to this Practice:

In this project, we labeled our favorite Power Car design.

**Obtaining, Evaluating, and Communicating Information:**

Integrate qualitative and/or quantitative information in written text with visual displays to clarify claims and findings.

- We labeled one important part of our power car design.
- We met Bronze.
- We labeled two more important parts of our power car design.
- We explained how one of the important parts of our power car works.
- We met Silver.
- We explained how all three important parts of our power car work.
- We met Gold.
- We created and shared our diagram and explanation with classmates.
- We revised our work and made it more clear for our classmates to understand.

Notes: