Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chemical Reaction Vehicle Checklist

Engineering Design Challenge

Use your knowledge of science to help design and build a vehicle that is powered solely by a chemical reaction.

Constraints

* Less than 30 cm long
* Constructed from approved materials
* Chemical reaction resulted from use of substances and water available in the classroom
* Once selected, no change can be made for the chemical reaction chamber

Criteria for Success

* Car traveled at least 1 meter

*Science Notebook Documentation*

*After the project is completed, record the page number from your notebook that illustrates each bullet point.*

Application of Science

* Conducted an investigation to discover the most effective chemical reaction to power the vehicle (Part 1)
  + Observations and data are clearly recorded and organized (Page\_\_\_\_\_)
  + Changed one variable at a time (Page\_\_\_\_\_)
  + Conducted 2 or more trials (Page\_\_\_\_\_)
  + Claim answers the question (Page\_\_\_\_\_)
  + Evidence supports that claim and matches the recorded data (Page\_\_\_\_\_)
  + Reasoning is a scientific explanation of the results (Why?) (Page\_\_\_\_\_)

Engineering Design Process

* Science notebook is used to document the process of the vehicle design (Part 2)
  + Ask - questions about the challenge are recorded (Page\_\_\_\_\_)
  + Imagine - multiple ideas are generated; includes diagrams (Page\_\_\_\_\_)
  + Plan - materials list and final design diagram included (Page\_\_\_\_\_)
  + Create - design and revisions are documented (Page\_\_\_\_\_)
  + Improve - revisions based on test results (observations and data) (Page\_\_\_\_\_)