

Name _____

Due Date _____

HB _____

Forces and Motion Science Project

Roller Coaster Poster Board

Analyzing and Extending Data from Roller Coasters

OVERALL COMPREHENSION SCORE:

OVERALL APPLICATION SCORE:

Novice <i>begins to approach expectations</i>	Apprentice <i>approaches expectations</i>	Proficient <i>meets expectations</i>	Distinguished <i>exceeds expectations</i>
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<u>Content</u> <input type="checkbox"/> Data tables are complete and velocity calculations are accurate. <input type="checkbox"/> Graphs accurately represent data. (8.P.12) <input type="checkbox"/> Interpretations of distance vs. time are accurate. (8.P.12) <input type="checkbox"/> Diagrams clearly show what the speed of the marble was at different points on the roller coaster (8.P.11) <input type="checkbox"/> Define potential and kinetic energy. (8.P.13) <input type="checkbox"/> Diagram show where kinetic and potential energy changed over the track. (8.P.13)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<u>Quality and Format</u> <input type="checkbox"/> Data tables and graphs are legible and clearly labeled <input type="checkbox"/> The diagrams are neatly created and the labeling explains the science occurring at each phase. <input type="checkbox"/> No spelling or grammar errors exist in your writing <input type="checkbox"/> All work handed in on time <input type="checkbox"/> Accurate and appropriate vocabulary used throughout	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Roller Coaster Science

Steps to Success

(* This part should be written on an index card (or typed) as a caption to a table, graph, or diagram)

1. Have you described how distance and time measurements were recorded? *	<input type="checkbox"/>
2. Have you clearly shown how velocity is calculated? *	<input type="checkbox"/>
3. Did you make a distance vs. time graph? (Roller Coaster)*	<input type="checkbox"/>
4. Did you explain what your distance vs. time graph meant? What does the shape of the line mean?*	<input type="checkbox"/>
5. Do you define the difference between kinetic and potential energy? *	<input type="checkbox"/>
6. Do you explain how and why kinetic and potential energy changes over the roller coaster?*	<input type="checkbox"/>
7. Do you have a diagram illustration that describes the data collected for your roller coaster? (What is the speed at a certain point? How long did it take to go there? Was potential energy high or low? What kinetic energy high or low?)	<input type="checkbox"/>

Teacher Comments and Suggestions

You did a great job on this!

Things that can be revised

Parent/Guardian Signature

Date