

**STEM: Roller Coaster Physics Rubric**

	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>
<b>Start</b>	Lab notebook is titled "Roller Coaster Physics" with date and page numbers, the background is complete, the individual sketch is completed and a materials list is set up.	Students are missing one of the components addressed.	Students are missing more than one component addressed.	Student did not complete task.
<b>Step 1-2</b>	Individual sketch is titled complete with labels, Collaboration is titled and notes are completed.	Students are missing one of the components addressed.	Students are missing more than one component addressed.	Student did not complete task.
<b>Step 3-4</b>	Group sketch is complete with labels and all modifications are addressed.	Group sketch is complete but missing few labels or modifications were not addressed accurately.	Group sketch is complete but missing many labels and modifications were incomplete.	Student did not complete task.
<b>Final Draft</b>	Final draft sketch is titled and complete with accurate labels addressed in packet allowing for easy set up on presentation day.	Final draft sketch is missing few labels causing a delay in set up on presentation day.	Final draft is missing most labels causing a difficult time or inefficient set up on presentation day.	Student did not complete task.
<b>Presentati on and Data</b>	You were a part of the presentation with accurate explanations using key terms. Your Class Data is titled and accurately recorded both qualitative and quantitative data.	Students are missing one of the components addressed.	Students are missing more than one component addressed.	Student did not complete task.
<b>Conclusion Reflection</b>	Purpose is accurately identified and explained as the intro to the reflection.	Purpose is identified but not completely clear in explanation.	Purpose is not clearly identified or explained.	Student does not complete task.
	Student uses several (three or more) scientific terms to explain the plan of their model.	Student uses a (one-two) scientific term to explain the plan of their model	Student explains plan but does not use scientific terms.	Student does not complete task.
	Student clearly explains whether the model did or did not change during construction with a clear explanation as to why or why not	Student identifies what changes were made/not made but does not clearly explain.	Student identifies what changes were made/not made but does not explain.	Student does not complete task.
	Each of Newton's Laws was accurately identified in this lab with a clear and detailed explanation.	Each of Newton's Laws was accurately identified in this lab. Explanation was not detailed.	Newton's Laws were inaccurately addressed or laws were missing from explanation.	Student does not complete task.
	Student accurately identified the basic understanding of energy with a clear and detailed explanation.	Student accurately identified the basic understanding of energy in this lab. Explanation was not detailed.	Energy was inaccurately addressed.	Student does not complete task.
	Student gives a detailed explanation as to what could have been done to make his or her roller coaster better by addressing specific groups outcomes and addresses what advice he or she would give to an amusement park engineer.	Student gives explanation as to what could have been done to make his or roller coaster better. Addresses what advice he or she would give to an amusement park engineer.	Student doesn't clearly identify what could have been done to make roller coaster better. Doesn't fully address what advice he or she would give.	Student does not complete task.

**For every day late -3%**