

Students, TO USE THIS DOCUMENT, you MUST make a copy for yourself:

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Step 5 Directions & Rubric

1.	At your first team meeting, read over the Directions & Grading Rubric document.
2.	Analyze team member strengths by sharing personal expertise and interest areas such as: Internet research, a good scavenger for materials needed, good design visionary, good assembler, good sketcher, good team leader to keep things on task, good note taker
3.	Identify a team note-taker to make a copy of this Roller Coaster Team Planning document and share it online with team members, or print it out
4.	Look for the green highlighted ⇒ arrows. Begin to fill out part two adding ideas and team member names as they volunteer
5.	Make a drawing in step three and meet with your teacher for approval to begin construction and gathering materials. Modify the team planning chart if needed.
6.	Once approved, begin work to construct your coaster.
7.	Begin the test runs and document it in your Roller Coaster Team Planning document. Complete all of the trial runs making changes and improvements as needed.
8.	Review the rubric below and make any changes needed before you turn your team planning document and roller coaster work into your teacher.
9.	Write a CONCLUSION REPORT - Create a three-minute project report using any technology process the team selects and include some video and/or still images. Have a team discussion with each partner contributing to an analysis answering the following questions.
Did I/we meet my/our learning goal(s) at the top of the roller coaster team planning document ?	
What are some good decisions and steps we took to solve specific problems with the design and construction?	

Roller Coaster Engineering Challenge Rubric

Roller Coaster Engineering Challenge Rubric		
CRITERION (24 points possible)	POINTS	COMMENTS
Labels present and accurately identified on the coaster 1. Where the kinetic energy is the highest 2. Where the kinetic energy is the lowest 3. Where the potential energy is the highest 4. Where the potential energy is the lowest 5. Where there is positive acceleration 6. Where there is negative acceleration	0-6 points	
Appearance: Does it look good? Is it neat? Is it decorated?	0-3 points	
Best Trial: Did the marble stay on the track? Did it complete the entire track without help? Did it come to a stop at the end? Did it get stuck in the middle?	0-3 points	
Thrills: Does it have one or more loops? Does it have two or more turns? Does it have more than 1 hill?	0-3 points	
Structure: Did it stay together when the ball went down? Did the joints hold up? Was the track stable for several runs?	0-3 points	
Creativity: Does it have a name? Does it have one or more unique features? Is it fun to use?	0-3 points	
Conclusion Report: Is the report/presentation without spelling and grammar errors? Does it identify good decisions made by the team? Does it include video and/or still images of the roller coaster?	0-3 points	