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Roller Coaster Team Planning Document

1. ⇒ Complete this table

Names of team members	Role(s) each will carry out	A learning goal identified by each member

Examples of potential roles: Internet research, good scavenger for materials needed, good design visionary, good assembler, good sketcher, good team leader to keep things on task, good note-taker, etc.

Rules our team agrees upon for good teamwork or collaboration

The 5-step Planning Cycle:

1. **ASK:** What others have done. Are there some constraints (space, time to create and complete it, building materials, etc.) Survey your team and teacher for materials available.
2. **IMAGINE:** Have other students posted information about theirs? Brainstorm with your team as you fill in the Planning Chart
3. **PLAN:** Sketch out a design that includes: ramps to build speed, turns, and one or more loops. Be sure to review the **Roller Coaster Creation Rubric** below as you make your plan. Meet with your teacher to review your plan. Once approved, gather your supplies.
4. **CREATE:** a small prototype with your materials to find the best way to support and attach your materials. Test it out.

5. **IMPROVE:** repair and redesign as needed

TEAM PLANNING Chart - Planning your coaster

2. ⇒ Checklist of planning tasks	List your answer and/or WHO will be responsible to do the task
1. The potential audience for the coaster, keeping the following in mind	
2. Number of hills and height of the first hill	
3. Loops? And how many if so?	
4. Number of corners or turns?	
5. Launch or starting point height (should be the highest point)	
6. List of materials to scrounge for (constraints)	
7. The coaster - will it be marble (wooden, glass, steel) and how much does it weigh?	
8. Have others posted information or pictures about what they made the track with? What are the keywords to search? If you are under 13, ask your teacher or parent to visit Pinterest.com and YouTube to search.	
9. What will you use to hold it together?	

3. ⇒ Make a drawing of your proposed coaster and take this information to your teacher for a discussion before the team begins building it and gathering materials.

4. ⇒ CARRYOUT THE CONSTRUCTION OF YOUR COASTER

Testing your Roller Coaster:

5. ⇒ Trial 1: Take a video of the run (if possible)

Name of your coaster:	How many seconds did it run for?	Was it a successful run?
NOT successful. Went off the track.	And if so where?	Team brainstorm ideas to fix this.
STUCK and STOPPED	Describe where	Brainstorm solutions
Was all good, but didn't get to the ending	Describe where	Brainstorm solutions
STRUCTURE problems	Describe the problem	Brainstorm solutions
Other Problem	Describe the problem	Brainstorm solutions

6. ⇒ Describe the changes and your reasons for them here before doing Trial 2.

7. ➡ Trial 2: Take a video of the run (if possible)

Name of your coaster:	How many seconds did it run for?	Was it a successful run?
NOT successful. Went off the track.	And if so where?	Team brainstorm ideas to fix this.
STUCK and STOPPED	Describe where	Brainstorm solutions
Was all good, but didn't get to the ending	Describe where	Brainstorm solutions
STRUCTURE problems	Describe the problem	Brainstorm solutions
Other Problem	Describe the problem	Brainstorm solutions

8. ➡ Describe the changes and your reasons for them here before doing Trial 3 if you have time for another trial.

9. ⇒ Trial 3: Take a video of the run (if possible)

Name of your coaster:	How many seconds did it run for?	Was it a successful run?
NOT successful. Went off the track.	And if so where?	Team brainstorm ideas to fix this.
STUCK and STOPPED	Describe where	Brainstorm solutions
Was all good, but didn't get to the ending	Describe where	Brainstorm solutions
STRUCTURE problems	Describe the problem	Brainstorm solutions
Other Problem	Describe the problem	Brainstorm solutions

10. ⇒ Team conclusions:

11. ⇒ What top 5 tips would you give to another class before they build one?

- 1.
- 2.
- 3.
- 4.
- 5.