

Name _____

Survey for the At-Home Roller Coaster Project

Circle the answer the best reflects your own thoughts.
This will not affect your grade in any way.

1. What are your general feelings about your roller coaster? Pick as many as you need to describe your thoughts.

- a. I am proud of what I designed and built. I put a ton of time and effort into the project.
- b. I had fun designing and building my roller coaster.
- c. I think I would have enjoyed building and designing my project but either my partner or a member of my family "took over" the project so I do not have much ownership over my project.
- d. I am proud of what I designed and built, but it really did not take all that much time and effort.
- e. I wish I had given the project more time and effort.
- f. Although I worked hard, I do not like the work that I did.
- g. I do not like my roller coaster project but I didn't put much time and effort into it either.
- h. Fill in your own thoughts if one of the above does not apply to you. _____

2. What are your feelings about this type of assignment (the roller coaster project)?

- a. I like doing something productive (design, build, experiment) with my brain and hands rather than read or complete worksheets for homework.
- b. I would rather read and complete worksheets about the science concepts for homework.
- c. Fill in your own thoughts if one of the above does not apply to you. ____

3. What was the hardest thing about completing the roller coaster?

- a. Working with my partner.
- b. Working with one of my parents or family members.
- c. Getting the supplies.
- d. Finding some quality time to work at home or partners house.
- e. Designing the actual elements so they would work.
- f. Building the infrastructure for the elements. Getting it stable so it would work every time.
- g. Completing the calculations in class.
- h. Write in your own thoughts. _____

4. What was the thing you enjoyed the most during this project?
- a. Building the elements
 - b. Working with my partner or family member.
 - c. Being creative with my thoughts and putting them into action.
 - d. Seeing the marble make it around finally.
 - e. Making the calculations. It was kind of interesting to see what those numbers represent. I was proud that I could do them correctly.
 - f. Fill in your own thoughts. _____

5. I learned the following through this project.
- a. That designing is mostly trial and error.
 - b. That designing is harder than it seems.
 - c. That designing takes some knowledge to know in what direction to go and then it is by trial and error.
 - d. That all force and motion can be described through math, even on roller coasters.
 - e. That the art of designing and building is purely mathematical.
 - f. I was able to observe all of Newton's Three Laws of Motion in action on my roller coaster.
 - g. Fill in your own thoughts. _____

6. What are some ideas or help you could give me when I assign this next year.
- a. I have no ideas to share because you are already perfect and did everything just right ☺
 - b. Although **you** are not perfect, this assignment was just right ☺
 - c. I appreciate your efforts to give us a meaningful project but here are some ideas I have that can improve on the project: _____

7. Now for an honesty check: Circle the one the best fits your situation.
- a. I worked harder on this project than my partner. He/She had little to do with it but we put their name on it anyway.
 - b. My partner worked harder on it than I did. I mostly goofed around.
 - c. Neither my partner nor I worked very hard on it. The parents took over.
 - d. We worked equally hard on this project.
 - e. Write your own answer in if the any of the above does not fit. _____

8. Concerning the calculations on this project I...
- a. Completed the calculations to the point that I understood what I was doing. If I did not understand, I asked for help.
 - b. I just wrote down numbers. I don't have a clue if they are correct.
 - c. I just copied what my partner had on his sheet.
 - d. I didn't do very many calculations or I completed none at all.

9. During the class work times on our roller coasters, I...
- a. Stayed on task most of the time and took my assignment seriously.
 - b. Mostly goofed around. It was too hard to stay on task.
 - c. Kept to the task half the time and goofed around half the time.
 - d. Fill in your own answer if the above does not apply. _____

10. Considering the building of the roller coaster, the journaling, the white sheet, and all the calculations, I think I earned a:
- a. A
 - b. B
 - c. C
 - d. D
 - e. F

11. Considering only the paper work, I think I earned a/an:
- a. A
 - b. B
 - c. C
 - d. D
 - e. F

12. Considering only the building and designing of the roller coaster, I think earned a/an:
- a. A
 - b. B
 - c. C
 - d. D
 - e. F

13. On a scale of 1-5 (5 being a very worthwhile assignment and 1 being a worthless assignment), I would rate this assignment a _____.

Thank you for your honest and candid answers. Your input is valuable to me and I respect your opinions. Most of you did a great job on this task. There was more quality work this year than any of the other two years that I assigned this project. A lot of you have great engineering minds, and so for you, this is only the beginning. To the other students that struggled with this task, that is o.k. too. We should always be challenged to do things that are not in our comfortable zone. It builds character and dendrites! Learning doesn't stop when you are finally out of school. I challenge and push myself to do something new or learn something new weekly. Thank you for being so awesome. You make me proud to be your teacher. – Mrs. Maves