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Term Project Reflection

There are many things that I have learned through this term project. It has allowed me to experience physics in a way that I had not before. It allowed me to invest myself personally into a project in a way which allowed me to understand a physics concept to a larger extent than just the project. Although I only studied the one application of the principle, I believe that through this project I understand how the transfer of energy works in nearly every situation. Therefore, I can confidently state that I have learned much through this experience.

There were many skills that I gained during this process. Something I was often used to during “experiments”, was to do the experiment but google the results for a clear answer. However, I decided to go through with my own results in this project; which, in turn, furthered my understanding of the concept. When I initially submitted my method, I had a very simplistic approach to this project. I simply wanted to drop a ball and record the results; then, google why this happened and be done with it. After I received my revisions for my method, it helped me to take into perspective exactly what the project was, and what the project was testing. I then conducted the experiment and submitted the data; however, at this point I still did not have a high level of interest in the project, nor had I thought about the scientific method to a large extent. After I received the revisions for my data, that is where everything began to come together. The revisions pointed out that my data were too similar for the two different groups. This led me to investing my thought into the project. I knew what was meant to be happening,

but my experiment wasn't accomplishing the results intended. I then researched into why the ball bounces and learned about rigidness and the energy lost. After thinking about where the energy was going and what caused it, I then looked back on my film. Looking back, I saw that the concrete under the hardwood flooring was contributing to a conservation of energy. After figuring this out, I completely invested myself in finding a solution and the project itself. Therefore, this project helped me to gain the skill of analysis. A skill necessary to understanding the solution to any problem. The revisions were extremely helpful; they were the reason why more effort was put into my project. If there were no revisions, my project would have probably been a last second mess.

This project brought about an interesting side of the scientific method in me. Initially, I had no care for the scientific method. I just went with the project as I went. However, after being faced with why my results were not what they were supposed to be, I experienced a different side of the scientific method. I had always thought about the scientific method as a formal process of formulating and documenting an experiment; this experiment allowed me the experience the scientific method as a process of thought. Organizing my thoughts rather than being a formal process I had to follow because of some professor. Therefore, I believe this project was broadly enhanced my understanding of the scientific method.

There were many great projects that I learned much from. The ones that stood out to me were the bicycle one and the weight lifting one. Although I have forgotten the names of the people who did the projects, they caught my attention in a very special way. I could tell that going into the project, these people were genuinely curious about their result; this was strongly reflected through their knowledge on the subject as they presented it. I learned most from the bicycle one; I initially thought that the more inflated the tires would be, the better the time would

be. This hypothesis is clearly due to my lack of experience with bicycles, but through the presentation and the experiment I learned so much. I also learned so much through his process and planning; which were on a completely different level compared to my initial process.

Therefore, I have learned much through this whole process. Conducting this experiment and confronting the problems that faced me, allowed me to understand a principle of physics in a way that I did not think I would. I also learned that we have the ability to understand the world around us. Although we may not be physics or science majors, we were each able to conduct an experiment and understand a concept of physics to the point where we could give a detailed presentation on it. If you ask me, for a couple of community college students that's pretty amazing.