Abby

Glider Lab Report

This lab report shows the glider lab completed throughout the last few weeks that took place in Amilio's physics class. The main idea of this lab was to find the design features that had the greatest effect on the performance of the gliders and to teach us how gliders differentiate from other kinds of aircraft.

Although I wasn't at school for the two testing days, I had been informed that our group was very efficient and completed many different tests including changing the length of the glider. While I was there when we tested our independent variable, we were able to successfully observe and record what we saw. Each time we tested, we made sure that all group members were present and included. We had one person launching next to a stretched out tape measure in the hallway, and the other three observing to compare what we saw and recorded. After each test, we observed the glider up-close to make sure that nothing had changed or been damaged. If the glider had been damaged or if a wing had moved out of place, we would make it a priority to get it repaired as soon as possible to continue testing. During testing it was, at times, hard to stay focused, but each day we managed to complete our tasks and what we needed.

Our independent variable was the launch pull force and we compared using a small rubber band and large one pulled to the maximum that each of them were able to extend to. An observation we had was that the glider worked the best when we had altered the length, but didn't work as well when we changed the independent variable of the pull force.

Throughout the lab, I contributed by the building and measuring the flown distance of the glider. I believe that I worked with my group fairly well because I made sure that everyone was contributing, present during testing, and making sure that I caught up with what I had missed. The work was evenly split up because we all helped one another with each task. For example, if someone was building, someone else would offer to assist them, if someone was launching, we made sure that we all knew how to do it, etc.

Our independent variable hardly had any effect on how far the glider went. I believe that the key element of the glider's distance is affected mostly by the design of it, because even if you pull the rubber band back farther than 12 inches, it can still react to it the same way, it all depends on how well and long the glider can fly. Something that I would do to make our glider fly the farthest would have to be to make sure the weight is even on all sides because if you try to glue or tape something on, it makes the weight uneven. I would make sure the slots for the wings are an exact fit because if it is slightly

loose, it can alter the way it glides. I would also alter the length because we saw that this made the glider fly farther.

Overall, I noticed from other groups, that the best results happened when the glider was effected by the wind outside which was the independent variable from Riley, Eric, and Sondre's group. I think that they had the best results because the wind outside might have had more force pushing the glider forward or their glider was just well designed.