

CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)	Project Number
Julio A. Medina	J0219
Name(s) Project Number Julio A. Medina JO2219 Project Title How to Build a Better Bridge Cobjectives/Goals Abstract Objectives/Goals The purpose of this project was to find out how vertical or horizontal reinforcements affect a bridge's ability to hold weight. I am interested in engineering and this project could help me in later life if I need build something strong. Methods/Materials I started by researching different bridges to find out how other people built their bridges and how to built mine. I used truss bridges for this experiment. One bridge I tested had horizontal reinforcements, one had verifical erinforcements and the last had nothing. The bridge were built as similarly as possible to reduce the variables. I hung weights off of the bridges and weighed the weights to see how strong the bridge was very britted. The bridge with horizontal reinforcements held the most weight (95 lbs) compared to the control (57 lbs) and the bridge with vertical reinforcements held the most weight concentrated at the bottom joints. The vertical bridge had all of the weight concentrated at the bottom joint. Sho The vertical bridge was very britted while the control was extremely flexible and the horizontal bridge was in between Summary Statement This project finds out how vertical and horizontal reinforcements affect a bridge and why. Help Received Help Received	
Objectives/Cools Abstract	t
The purpose of this project was to find out how vertical ability to hold weight. I am interested in engineering an build something strong. Methods/Materials I started by researching different bridges to find out how mine. I used truss bridges for this experiment. One bridgivertical reinforcements and the last had nothing. The brithe variables. I hung weights off of the bridges and weight Results At the end of this experiment, I concluded that the bridgive weight (95 lbs) compared to the control (57 lbs) and the Conclusions/Discussion The bridge with horizontal reinforcements held the moss control bridge had its weight concentrated at the bottom concentrated at one point and was pulling apart at anoth while the control was extremely flexible and the horizont while the control was extremely flexible and the horizont while the control was extremely flexible and the horizont while the control was built and horizontal reinforcement while the control was built weight flexible and horizontal reinforcement while the flexible and horizontal reinforcement while the horizon was extremely flexible and the horizon while the control was extremely flexible and the horizon while the control was extremely flexible and the horizon while the control was extremely flexible and the horizon while the control was extremely flexible and horizontal reinforcement while the control was extremely flexible and horizontal reinforcement while the control was extremely flexible and horizontal reinforcement where the set of the horizon was extremely flexible and horizontal reinforcement where the horizon was extremely flexible and horizontal reinforcement where the horizon was extremely flexible and horizontal reinforcement was extremely flexible and horizontal reinforcement was extremely flexible and horizontal reinforcement where the horizon was extremely flexible was extre	I or horizontal reinforcements affect a bridge's nd this project could help me in later life if I need w other people built their bridges and how to bui lge I tested had horizontal reinforcements, one ha ridges were built as similarly as possible to reduc ighed the weights to see how strong the bridge wa lge with horizontal reinforcements held the most e bridge with vertical reinforcements (55 lbs). st weight because it spread the weight evenly. Th n joints. The vertical bridge had all of the weight her point. Also The vertical bridge was very britt ontal bridge was in between
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