



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

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Project Title Concrete Strength	
Abstract	
Objectives/Goals I tested to see what commercial concrete additive would make the concrete the strongest. I used three additives: a fast dry, a slow dry, and a flow control additive.	
Methods/Materials All the concrete was mixed in with 20 Lb. of cement. 7.5 and two thirds cups of water was then added and the recommended amount of additive was added also. The 20 pound batches would make 6 samples. All samples were one inch thick and in and each sample was in the same size tray. The samples had seven days to cure. After the seven day drying period we tested them in a machine that can be set to the amount of weight the amount of weight it broke under was then recorded. After all my test I averaged all my test and came up with my conclusions.	
Results The flow control additive made the concrete the strongest with an average strength of 5.52kg. Drying accelerator was second with the average amount of 4.43kg. The control was third with the average amount of 2.73kg. The drying retardant was last with the average amount of 0.21kg.	
Conclusions/Discussion My results some what surprised me I thought that the flow control would be the strongest but I thought the accelerator would be the weakest instead of the second. I would recommend using flow control when pouring a driveway or sidewalk I would definitely recommend it on columns and bridges too. The slow down would be the worst product to use because it made the concrete crumbly and it cracked while drying.	
Summary Statement I tested what commercial additive would make concrete the strongest.	
Help Received Father helped pour the cement into the trays and helped me type the report.	