



**CALIFORNIA SCIENCE & ENGINEERING FAIR  
2018 PROJECT SUMMARY**

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<b>Project Title</b> <b>Rock 'N Roll</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> We wanted to discover if there is a correlation between water concentration and liquefaction.</p> <p><b>Methods/Materials</b> We used a shake table, water, sand, bucket, and a rock. To begin our experiment, we put a specific water concentration with four cups of sand. We then placed a rock and measured their height. We then set it on the shake table at 200 rpms for one minute and recorded how far the rock sunk. We repeated this ten times for each water concentration.</p> <p><b>Results</b> At 25% water concentration the average amount of liquefaction was 5 mm. At 50% the average was 29.35 mm. The rock at 50% water concentration sunk 24.35 mm more on average than at 25%. This shows the direct correlation between an increase in water concentration and an increase in liquefaction.</p> <p><b>Conclusions/Discussion</b> Our results supported our hypothesis. Our experiment notifies the population of one of the important factors in the occurrence of liquefaction. This is a serious problem in California due to its susceptibility to earthquakes.</p>	
<b>Summary Statement</b> In this experiment we discovered the relationship between water concentration and liquefaction.	
<b>Help Received</b> None. We designed and carried out the procedure by ourselves.	