



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

Name(s) Samantha B. Salazar	Project Number 38227
Project Title How Do Natural Substances Affect Fruit Preservation?	
Abstract Objectives/Goals The objective of this project is determine if natural substances can help preserve fruits. Methods/Materials fruits (apple slices and strawberries), bowls, ziploc bags, freezer, fridge, counter surface, Results The results of my investigation on the preservation of fruits were that the fruits with lemon juice in the fridge were less spoiled, compared to the fruits on the counter that had no natural preservative, lemon juice and apple cider vinegar, and the fruits in the fridge that had no natural preservative and apple cider vinegar. Also the fruits in the fridge were more fresh than the fruits on the counter. Had to throw away all fruits within 120 hours due to severe mold growth and then decomposing. Would not suggest consumers to ingest them after 48 hours. Lemon juice kept fruits fresh for 72 hours. Conclusions/Discussion After completing my investigation on the storage of fruits, I found that the fruits in bowls and bags with lemon juice lasted longer in the fridge rather than the fruits in bags and bowls on the counter. My hypothesis stated that storing fruits with lemon juice in the fridge is better since the coldness in the fridge holds back the bacteria which is the most effective because we would have longer time to eat and enjoy the fruits. My best variable for my project was the apples in the bag with lemon juice in the fridge because the lower temperature from the fridge kept the bacteria from growing as fast whereas on the counter they went bad on day 5 and had to be thrown out. Also, the fruits in the bags are not as exposed to oxygen which prevents oxidation and decomposition, and my worst variable for my project are the strawberries on the counter in the bowl with nothing since it is not controlled by temperature and is exposed to bacteria which then allows mold to grow faster.	
Summary Statement Lemon juice was the best natural substance in preserving fruit slices.	
Help Received Jewely Lickey, Glenn Kinney	