



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Ram D. Patel	Project Number J1429
Project Title The Power of Fruits and Spices	
Abstract	
Objectives/Goals This experiment will show how fruits and spices can inhibit bacterial growth to allow us to live a healthy life.	
Methods/Materials <ol style="list-style-type: none">1. Shredder2. 6 thin cloths3. Juicer4. 7 test tubes5. 3 fruits (lemon, lime, orange)6. 3 spices (garlic, onion, ginger)7. 6 droppers8. 8. 3 Petri dishes9. 9. Sterile swab10. 1 bottle of sterile water11. 5 loop prongs12. 12. Incubator13. NS solution14. 3 contaminated place	
Results Results: It was discovered that garlic was the best over all because it probably contained anti microbial property to inhibit the bacteria. Lime was the best fruit to inhibit bacteria because it has a strong amount of citrus acid. Lemon was the second best fruit because it also contained a strong amount of citrus acid. The other fruits and spices did not work because they probably did not contain the strong citrus acid or anti microbial property.	
Conclusions/Discussion Conclusion: The experiment was to test what kinds of fruits and spices inhibit bacterial growth. It was hypothesized that the lime would work best because the citrus acid inhibits bacterial growth. It was also hypothesized that the garlic would work best because spices have anti microbial properties to inhibit the bacteria; which garlic has. To test the hypothesis, the bacteria were grown in the Petri dishes from three contaminated areas. The bacteria were singled out after the incubation. After the bacteria were singled out into there	
Summary Statement This project is to test if fruits and spices can inhibit bacterial growth	
Help Received Mother helped with making the board, Father helped with testing the project, Dr. Mohinder explained what to do and how to do it for the experiment	