



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Kayleen D. Ports	Project Number J1425
Project Title Spoon Fed Germs: Does Baby Food Live Up to Terms?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Unlike adults, babies immune systems are unable to fight off harmful bacteria. The mouth is the most common way bacteria enters their immune system. I was wondering if baby food would become unusable if left out on the counter, and if so, how long would it take for the food to go bad. I wanted to know this because I see parents reuse baby food all the time; sometimes they put it in the refrigerator and sometimes they don't depending on what's convenient. I hypothesized that refrigeration would decrease the bacteria on the baby food and that the beef type would have the most growth. I also thought that as the time increased so would the amount of bacteria.</p> <p>Methods/Materials I tested this problem by taking 4 types of baby food, beef, fruit, vegetable, and juice that had been left out over a period of time (5 different intervals). Half my tests were refrigerated and half were left on the counter in room temperature. I then inoculated a small sample of baby food onto a blood agar plate and incubated the plates for 48 hours at 38 degrees Celsius. Then I counted the bacteria spores for my results. To control my experiment I worked under a lab hood, wore latex gloves, and used the same brand of baby food for each test. In this experiment the independent variables are the types of baby food, the amount of time left out, and whether it was refrigerated. The dependent variable is the amount of bacteria growth.</p> <p>Results After analyzing my data I concluded that it is not safe to leave baby food out. As the time it sat out increased, so did the amount of bacteria found in it, refrigeration only slightly decreased bacteria growth, and the food containing meat had the most bacteria.</p>	
Summary Statement My project examines the levels of harmful bacteria that grow in baby food after it has been opened and used in both refrigerated and room temperature environments over a period of time spanning 0 to 14400 minutes.	
Help Received Mrs. Marcarelli supervised during testing; Parents helped financially; Anna Lubati provided agar plates and sterile loops; Mr. Miller properly disposed of the used agar plates.	