



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2019 PROJECT SUMMARY**

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| Name(s) Kaylee Kautz | Project Number J1214 |
| Project Title Spherical Food | |
| <p style="text-align: center;">Abstract</p> <p>Objectives Objective: I use a process called reverse spherification to make juice flavored spheres. The objective is to determine which flavored sphere tastes the best.</p> <p>Methods Materials and Methods: When I make the spheres, I use two different chemical combinations: calcium lactate with sodium alginate and calcium chloride with sodium alginate. I made four different flavors of spheres, using the two chemical combinations. With my science teacher s permission, my classmates tested the eight spheres. Each flavor was designated by a letter and everyone ranked which sphere they thought was the best. Comments were also requested.</p> <p>Results Results: The spheres that were made with the calcium lactate tasted the best overall. The strawberry flavor, however, was the overall winner. Most of the comments indicated that many of the spheres seemed too salty.</p> <p>Conclusions Discussion: In conclusion, the calcium lactate makes a better tasting sphere than the calcium chloride. I hope that I am given another opportunity to do redo my taste test with other flavors so that it proves that the spheres made with calcium lactate taste better. I would like to change the components in the spheres to reduce the saltiness and make the spheres better to eat.</p> | |
| Summary Statement When making spheres, you use two chemicals to create a gel like bond around a liquid juice. | |
| Help Received Lori Bloathner, David Voit, Doug Modlin | |