



## Colorado Science and Engineering Fair

## 2025 Individual Project Abstract Form

**Please print 2 copies of the completed form. Sign both copies, keep 1 for your notebook and submit 1 copy to your Regional Fair Director with your other paperwork.**

Title of Project: Baking the Perfect Chocolate Chip Cookie

Finalist's Name: Jack Griepentrog

School and City: SkyView Academy, Highlands Ranch

Sponsor's Name: Danielle Griepentrog

Category: Chemistry

Division: Senior (grades 9 - 12)

Abstract (250 words or less):

I chose this topic because I enjoy baking. However, when I make chocolate chip cookies they end up being very flat. Therefore, I wanted to do some science to figure out how to improve them. I am measuring how thick the cookie is at its highest point. I ran four tests, a control and three others that had a changed variable. The three variables that I changed were: the amount of flour, the amount of baking soda, and putting the dough in the refrigerator. I hypothesized that the increased baking soda amount would yield the thickest cookies. To ensure even cookie sizes, I weighed the dough and shaped it into the same size pucks for each cookie. I then baked them all for 11 minutes at 375' Fahrenheit. After letting them cool, I recorded my results by measuring with a ruler and put them in a table. The recipe that performed the best was the increased flour amount and the recipe that performed the worst was increased baking soda amount. In conclusion, I created a cookie that was thicker than the original recipe.

*I hereby certify that the above statements are correct and the information provided in the Abstract is the result of one year's research. I also attest that the above properly reflects my own work.*

Finalist's Signature:

Date:

In addition, all students must complete the ISEF Student Checklist (1A), Research Plan, Approval Form (1B), and Checklist for Adult Sponsor (1), and any other ISEF forms required for this type of project. See the International Rules and Guidelines for form requirements. Return COPIES of all of these forms to your Regional Fair Director with you Finalist Verification/Permission Form. **A signed copy of this form must be included in your notebook.**