



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: Analysis of Glucose Levels in Food to Aid in Hypoglycemic Recovery

Finalist's Name: Travis Wise

School and City: Liberty School, Joes

Sponsor's Name: Linda Fogale

Category: Biomedical & Health Sciences

Division: Junior (grades 6 - 8)

Abstract (250 words or less):

The purpose of the project was to analyze glucose in food to see which would be the best for hypoglycemic recovery. The methods for the project were modified from Cell Biolabs Glucose Assay Kit. First the 10X buffer was diluted to a 1X buffer. After this the samples, honey, corn syrup, cranberry juice, sprite, lemonade, and gummy bears, were prepared using the kits procedures. A 1:1000 dilution was prepared with the samples, and a 1:100 dilution was prepared with the samples. Then a reaction mix was prepared. After this 8 standards were prepared using the preparation of standard curve in the kit's directions. Once everything was prepared the assay protocol was followed. After this the plate was incubated, and read by a spectrophotometric microplate in the 540-570 nm range. After this the concentrations of the samples, and standards were calculated. The findings was that corn syrup had the highest concentration, but it had almost the same results as honey, which made honey have the second highest, gummy bears had the third highest, cranberry juice had the fourth highest, sprite had the fifth highest, and lemonade had the lowest, with having similar results to sprite, but the data wasn't correct because when graphed the 1:100, and 1:1000 weren't equal, so in conclusion the data is incorrect. More about hypoglycemia, how to use a colorimetric kit, what to do better if a colorimetric kit is used in the future, and glucose concentrations was all learned from the project.

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.**