



## Colorado Science and Engineering Fair

## 2024 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: Real Vs. Fake Blood Splatter

Finalist's Name: Hayden Eubanks

School and City: West Grand High School, Kremmling CO

Sponsor's Name: Bree Moonen

Category: Biomedical Sciences (BMED)

Division: Senior (9th - 12th grades)

Abstract (250 words or less):

The purpose of my project was to determine if fake blood can be comparable to real blood. I hypothesize that if my fake blood recipe looked similar to real blood when dropped, my fake blood recipe could be used for research. Also when you don't have access to real blood. If I drop my fake blood from 3 feet high at 90 degrees, then I would be able to compare it to real blood under the same circumstances.

The experiment involved creating fake blood by using 50:50 parts of corn syrup and water with 3 drops of red food dye. I placed a poster with boxes on the floor, then hovered my dropper 3 feet over each box and dropped one drop in each box. I allowed the drops to dry, then I researched real blood stains that occurred the same way.

The data collected didn't support the original hypothesis. In my data I recorded the number of splatter drops that splashed upon initial impact. Real blood splatters had drops ranging from 2-20. Where my fake blood recipe ranges from 1-7. Real blood in this case splatters more than the fake blood.

These findings lead me to believe that fake blood is not accurate when compared to real blood. This is because real blood splatters more and also spreads out more than fake blood. The average splatter droplets from the fake blood is 2.2 drops, whereas real blood's average splatter droplets is 8.6 drops.

*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.