



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Samrat Thapa	Project Number S0322
Project Title Accuracy of Novel Based Methods in Finding Blood Impact Height	
Abstract Objectives/Goals My objective was to determine which, trigonometric method or stringing method is more accurate when finding blood impact height. Methods/Materials Simulation blood was absorbed by a sponge, which was then hit by a hammer to create blood spatter on a large sheet of paper for analysis. Same steps were repeated for two heights. Results After using blood spatter drops to gather basic data (angles, point of convergence, length/width of drops), both the trigonometric and stringing methods were applied in order to determine blood impact height. Upon comparing the average calculated height of the trigonometric data and stringing data to actual data, the trigonometric method had average of only 8.42% of error, leading the stringing method with 9% of error. Conclusions/Discussion From my project I concluded that the trigonometric method is more accurate when finding blood impact height than stringing method. The results may be accurate but in practical use both methods still need to be applied for better understanding a crime scene.	
Summary Statement I found out that finding blood impact height through trigonometric method is slightly more accurate than stringing method.	
Help Received My father, a physics instructor helped me in understanding basic physics concepts when figuring out blood spatter trigonometry.	