

CALIFORNIA STATE SCIENCE FAIR 2003 PROJECT SUMMARY

Name(s)

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Project Number

J0106

Project Title

Spatter Spatter Everywhere

Abstract

Objectives/Goals

To see when we hit a small amount of blood with an object, if the amount of force will effect the pattern of the resulting bloodstains.

Methods/Materials

We mixed glycerin, milk, and red food dye together to make our fake blood. Next we placed the blood on the block of wood and dropped the hammer and the baseball bat at various hights. Then we took the 4 targets off the boards and put them on the garage to dry. Then we counted the dots and interpreted our data.

Results

The hammer's spatter pattern ended up with the majority of the dots on the front targets (B and C). The baseball bat's spatter pattern ended up with the majority of the dots on the side targets (A and D). We think that the shape of the object determined the pattern of the resulting bloodstains. With a greater amount of force used, we observed an increase in the number of blood dots. We also observed an increase in the number of blood dots with small diameters

Conclusions/Discussion

When we were comparing our data, we found that our hypothesis partly correct. The increase in force did result in an increase in the number of blood dots and blood dots with small diameters. It did not, however, change the pattern of the blood dots.

Summary Statement

This project is about the effect of force on blood spatter patterns.

Help Received

Bart Epstien, for giving us some very helpful books on bloodspatter patterns, ideas on how to improve our way of interpreting our data. Cordelia Willis, for talking to us about forensic science and for giving us the idea of using milk in our blood formula. Our moms, Lauren Jenkins and Karen Wcislo, for helping us