

**General Information**

Grant Number	695
Project Title	Ballistics in Forensic Science
Please select the <b>MAIN</b> curriculum area your grant addresses.	Science
Does your grant have a technology component? (Will you have technology equipment, software, etc. in your budget?)	<input checked="" type="radio"/> No <input type="radio"/> Yes
<b>Primary Contact Information</b>	
First Name	Tara
Email	tara.allgood@allenisd.org
Last Name	Allgood
Phone Number	318-218-1625
Campus	Allen High School
Main Subject	Science - Secondary
Grade(s)	12
I have co-applicants.	<input checked="" type="checkbox"/>
<b>Social Media</b>	
Please provide your work-related social media contact information.	
Facebook	
Twitter	
Other (please specify)	

**Grant Co-Applicants**

<b>Additional Grant Applicants</b>			
First Name	Last Name	Campus	Grade
Darren	Hayes	Allen High School	12

**Describe details of the project**

Grant Number	695
<b>Campus/Student Information</b>	
Your campus:	Allen High School
Will other campus' be involved/impacted by this grant?	<input checked="" type="radio"/> No <input type="radio"/> Yes
Your grade(s):	12
Will other grades be involved/impacted?	<input checked="" type="radio"/> No <input type="radio"/> Yes

**Project Purpose**

What is the problem, need or opportunity that this grant will address? Describe the impact of this project on your students. (500 words or less.)

Forensic Science students at Allen High School need some special materials and experiments which can help them study ballistics as it relates to criminal investigations. During the 2017-2018 school year our students studied the JFK assassination by taking a trip to the 6th Floor Museum in Dallas. After this trip we conducted a survey of the students who attended and overwhelming majority of students said they did not get enough information about ballistics to allow them to make inferences

about the JFK case and crime scene and that they wanted more information on the science of ballistics. This proposal will include a case study and scene reconstruction of a famous ballistics case to be worked on before we go to the museum in the 2017-2018 school year.

### Project Description

How will the project or program be implemented? Describe activities and tasks. Who is the target population and in what ways will they benefit? (500 words or less.)

In crime scene teams Forensic Science Students will reconstruct the shootings of the infamous Sacco and Vanzetti case and calculate projectile trajectories using a map of the gunshot evidence, ballistics blocks, and trajectory rods. Then, they recreate the crime scene using string and laser techniques with bullet trajectory. Inactive dummy cartridges, fired bullets and casings are included in the kit to help students learn to characterize ammunition. They use gunshot residue analysis to determine which suspects fired guns during the crime. Finally, each scenario is presented with evidence for students to argue their unique case in court based on the evidence they have examined.

### Project Summary

Provide a brief summary for use on the Foundation's website and social media. (2-3 brief sentences)

Forensic ballistics is the examination of evidence relating to firearms at a crime scene, including the effects and behavior of projectiles and explosive devices. A forensic ballistics expert matches bullets, fragments, and other evidence. Forensic Science students at Allen High School will be immersed in the study of ballistics with realistic tools and crime scene recreation and modern forensic techniques to become experts in the Sacco Vanzetti crime scene which happened in the 1920's .

### Allen ISD Goals/ TEKS

Which Allen ISD goals/TEKS does this project support? Provide only two or three examples.

FS.14

The student evaluates bullet and tool mark impressions in a criminal investigation. The student is expected to:

FS.14B Recognize characteristics of bullet and cartridge cases;

FS.14C Explain laboratory methodologies used to determine whether an individual has fired a weapon such as identifying gun shot residue;

### Measurement

What specific measurements will be used to evaluate the effectiveness of the project? (500 words or less)

Before the JFK museum trip in the 2018-2019 school year we will conduct a pretest with questions which will measure student knowledge of ballistics as it pertains to crime scene investigations. The students will then study the Sacco and Vanzetti case with the help of the materials and experiments found in the kit and recreate the scene from their study. After the conclusion of the unit we will conduct a mock trial to listen to evidence and expert witnesses. We will then travel to the 6th floor museum to study the ballistics of the JFK crime scene. At the conclusion of the experience students will be given a post test with the same questions to measure student growth. Students will be required to submit a reflection on the experience with will be uploaded to their electronic portfolio, which is their Google Website.

### Teaching Methods

What teaching methods will be used to implement this project? (500 words or less.)

The students are presented with evidence and instead of seeing and testing evidence collected at a crime scene which is constructed for them, they are responsible for reconstructing the scene using the evidence presented. This creates a project based inquiry learning experience which is different from the other crime scenes they will encounter during the year. This task will require crime scene teams to work together and to cooperate with one another. All of the crime scene teams will collaborate on the final scene for reconstruction.

### Timeline

What is the project timeline and the date of implementation?

We will begin Ballistics at the beginning of November next year and spend 5 class periods working through the experiments with residue and cartridge markings. The trajectory of the bullet holes, residue examination along with information about the crime will help construct the final crime scene as a final activity. As a conclusion, the students will then travel to the JFK museum around the time of the 55th anniversary of his assassination in Dallas which is at the end of November.

### Curriculum/System Support

Explain how this idea or project enhances/supports Allen ISD curriculum or existing systems.

Forensic Science is a new course at Allen High School, students who choose a career track which includes criminal justice and law enforcement also take Forensics. Other students will take the class as a science elective because they are interested in the field.

Many of the current students are pursuing college degrees which will use Forensic Science and the experiences they encountered in high school to build upon. The study of ballistics is unique and requires specialized tools for precise measurement and accurate scene reconstruction, while building interest in the class to future students.

### Budget details

Budget Details \*\* All awarded funds will be available by September of the next school year.

Budget Item	Item Type	Unit Cost	Quantity	Total Cost
Ballistics Kit	Instructional Supplies or Resources	670.0	2	1340.0

BUDGET TOTAL 1,340

Are there any additional funds available for this grant? Campus or District Funds? PTA funds? Let us know if you have or will be seeking funds from other sources to help with this project.

Additional funds?  No  
 Yes

### Signature page and principal contact

Principal Approval Required

**Please provide the Name and Email of your PRINCIPAL. (Not your name)**

First Name	Last Name	Email Address(Notified)
Jackie	Schornick	jacqueline.schornick@allenisd.org

Applicant Signature

By entering my name below I signify that I understand that if I move within the District and have written the grant myself, I may take the grant with me to my school (as long as it is appropriate for my classes). If I have written the grant as part of a team, I will leave the grant behind with the team. If I leave AISD, I will leave the grant with the school for which I wrote the grant. As a condition of this grant, I will complete an evaluation form provided by the Foundation.

Signature Tara Allgood

Date 12/19/2017

### Principal's approval form

I certify that this would be a good use of funds for our school and this grant supports the district goals and/or our campus improvement plans. \*\*Do NOT include any identifiers, such as: campus name, your name, teachers name or mascot \*\*

No actions possible.

Comments

### History and final disposition of application

State Change History

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State Change 12/19/2017 11:05:36  
Submitted

\*\*\*\*\*  
State Change 02/13/2018 15:56:26  
Accepted

**Grant Status**

Grant Awarded  **Yes**  
 **No**

Award Amount