

Grant Number 1009

Project Title Effects Of Blood Alcohol Concentration On The Body

Please select the **MAIN** curriculum area your grant addresses. ScienceDoes your grant have a technology component? (Will you have technology equipment, software, etc. in your budget?)  
 No  
 Yes

### Primary Contact Information

First Name Darren

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Last Name Hayes

Phone Number 469-919-3429

Campus Allen High School

Main Subject Science - Secondary

Grade(s) 12

I have co-applicants. 

### Social Media

Please provide your work-related social media contact information.

Facebook Darren Hayes

Twitter @AHSCSI

Other (please specify) None

### Additional Grant Applicants

	First Name	Last Name	Campus	Grade
Tara		Allgood	Allen High School	12

Grant Number 1009

### Campus/Student Information

Your campus: Allen High School

Will other campus' be involved/impacted by this grant?  
 No  
 Yes

Your grade(s): 12

Will other grades be involved/impacted?  No  
 Yes

Please select all grades that will be involved/impacted by the grant.

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### 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.)

Forensics Students at Allen High School must be able to demonstrate understanding of the levels of tolerance and impairment due to alcohol consumption. Presently we only have visual charts to explain how a person reacts to alcohol consumption at different Blood Alcohol Concentrations (BAC). Unfortunately, just reading BAC on a chart with effects does not allow the student to fully understand what the effects are. For a student to fully understand the reaction of the body to differing BAC, the students should experience a simulated level of inebriation firsthand. Experiencing this gives the student the memory of how difficult it is to perform common tasks with higher BAC. Currently there are only four goggles on campus to share among two forensic teachers and one Criminal law teacher which makes time constraint an issue as to effectiveness of the learning. Having a class set for each forensic teacher would improve learning due to each group being able to utilize the differing levels of BAC.

### 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.)

Forensic students at Allen High School will be using the goggles during the Alcohol unit. Students will be performing tasks while sober, in other words without the goggles. Data such as how accurate the students conducted the tasks, how quickly they completed and what level of skill they portrayed will be documented. The students will then conduct the same tasks but while wearing the impairment goggles. The data will again be collected and the students will compare the two sets of data. Students will write their conclusion of how differing levels of BAC affect their normal physiological function. The students will be able to apply this firsthand knowledge to investigating a crime scene. The Forensic teams must determine what type of crime, or if there was a crime, occurred at a particular scene. Knowing how alcohol impairs an individual, the students will determine if the victim was a result of a violent attack or simply fell due to inebriation. Students will also understand how the alcohol thins blood and help determine if the blood pattern at the crime scene, is a result of alcohol thinning. Criminal law students at Allen High School will also use the goggles during their simulated field sobriety testing.

### Project Summary

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

Forensics study of Toxicology includes the effects of poisons, drugs and alcohol on the body and its response to these foreign substances. Forensics investigates how this toxicology could have been used during the commission of a crime as well as if it is a determining factor in the cause of death.

### Allen ISD Goals/ TEKS

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

FS.10A Explain the absorption, distribution, and elimination of alcohol through the human body  
 FS.10B Describe the blood alcohol laboratory procedures as they relate to blood alcohol concentration; (FS.3H): communicate valid conclusions supported by the data through methods such as investigative reports, lab reports, labeled drawings, graphic organizers, journals, summaries, oral reports, and technology-based reports  
 FS.10C Explain the levels of tolerance and impairment due to alcohol consumption.

### Measurement

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

During the impairment lab students will perform ordinary tasks while being sober and measurements will be made. These measurements such as time it takes to complete a task or how many attempts it took to complete, will be recorded. Students will then attempt the same tasks with impairment goggles and the same measurements made. The students will write a comparative lab report explaining from a personal perspective how higher levels of BAC affect people. The students will apply this newfound perspective when investigating crime scenes to determine how alcohol was a contributing factor.

### Teaching Methods

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

The students are experiencing firsthand the effects instead of seeing and documenting evidence from a chart which is constructed for them, they are responsible for reconstructing a scene using the experience. 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?

Forensic students begin researching DEA drug scheduling during the first week in January. The students then also research the effects alcohol has on the body by the second week of January. Students will begin the impairment lab during the end of the second week. this lab will take two days and then students will write up their conclusions and final lab report on the third day.

### Curriculum/System Support

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

Forensic Science is a relatively 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 blood is unique and requires specialized tools for relative experience, measurement and accurate scene reconstruction, while building interest in the class to future students.

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

Budget Item	Item Type	Unit Cost	Quantity	Total Cost
Fatal Vision Impairment Goggles	Instructional Supplies or Resources	149.0	10	1490.0

BUDGET TOTAL 1,490

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

### Principal Approval Required

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

First Name	Last Name	Email Address(Completed)
Jennifer	Fuller	jennifer.fuller@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 Darren Hayes

Date 01/23/2019

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 \*\*

Comments

Approved

**State Change History**

State Change darren.hayes@allenisd.org  
01/23/2019 15:49:52  
Submitted

State Change \*\*\*\*\*  
01/23/2019 16:34:17  
Not Submitted

State Change darren.hayes@allenisd.org  
01/24/2019 07:25:59  
Submitted

State Change \*\*\*\*\*  
01/24/2019 07:54:04  
Accepted

**Grant Status**

Grant Awarded  Yes  
 No

Award Amount 1043