

Grant Number 992

Project Title Forensic Osteology at Allen High School

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 Tara

Email tara.allgood@allenisd.org

Confirm 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.

Social Media

Please provide your work-related social media contact information.

Facebook none

Twitter none

Other (please specify) Google Sites for students

Grant Number 992

Campus/Student Information

Your campus: Allen High School

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

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

AHS STEAM Center

Your grade(s): 12

Will other grades be involved/impacted?
 No
 Yes

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

8
9
10
11

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.)

Allen High School Forensic Science and STEAM need BONES.....an osteology set to study basic forensic science concepts related to comparative forensic osteology and anthropology. A forensic science osteology kit would be the solution to the problem of needing replicas of bones to study and learn how biological profiles of crime scene victims are created. Right now, the lessons related to osteology or anthropology are limited in scope and learning opportunity because of the lack of bone models to conduct comparative study. Adding the forensic bone models set to this campus would fill the need for hands on experience for students who go on to study forensic anthropology, and other STEAM related careers, as many of our forensic science students have. All students in Forensic Science at Allen High School are not able to have authentic learning experiences. Our current resources... worksheets ...have been a substitute for amazing learning experiences due to the lack of bones.

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.)

Students in Forensic Science who are juniors and seniors will be guided through the basic methods of skeletal identification, use data tables and formulas with comparative bones - such as a European, African and Asian skulls with long bones from each. This will help students with gender determination, ancestry assessment, age estimation, stature assessment. Then students will analyze gunshot wounds and other trauma from the bones in the osteology kit. After becoming an "expert", students will use the replicas in the osteology set to theorize possible crime scenes with the bone evidence provided in the kit. This "evidence" can be sent on to criminal justice classes for cross examination and a possible trial.

The bone kit could also be used for cross curricular collaboration with art, which could use the skulls to generate sketches of the faces and submit the sketch as evidence in the mock trial and for the identification of victims, which would extend this incredible experience to art students.

Project Summary

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

Forensic Science at Allen High has seen increasing interest in forensic anthropology due to the popularity of "Bones" and other programs which highlight solving crimes by gathering evidence and being an "expert" in criminal investigations. But, what they realize in class is.... many crime dramas are not real life.... one doesn't just solve a crime because they "want to"... evidence must be produced and it needs to be solid. This is why an authentic bone kit would be such a game changer. Given the parts of the bone set which contain trauma wounds as the "evidence found" ,student forensic analysis teams will "solve" the crime by reconstructing what happened. And additionally identify each victim's gender, race and age as well as how they may have met their demise. Students with chosen tracks for criminal justice , law enforcement and forensic science could all benefit from becoming an "expert" in bone identification and analysis and as the final project create a crime scene scenario with a trial .

Allen ISD Goals/ TEKS

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

The student explores principles of anthropology relevant to forensic science. The student is expected to:

FS.16A

Identify the major bones of the human skeletal system;

FS.16B

Compare composition and structure of human bones with other animals;

FS.16D

Explain the characteristics of the human skeletal system indicative of specific gender, racial origin, and approximate range of age and height; and compare and contrast

And the process skill that supports all of these:

S.1 - The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to achieve business and industry employability skills standards such as attendance, punctuality, meeting deadlines, working toward personal/team goals every day, and ethical use of technology, and evidence

Measurement

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

Given a blank human skeleton students will identify the bone that they can and, predict a method for determining height, sex and age and record this on their Google website. This will be their prior knowledge check baseline which will be used to measure student growth.

By the end of the project they will use their Google website to post their crime reconstruction and will identify each skull and bone in the set according to gender, race, approximate age and height. They will also state the methods they used to identify bone evidence, for example how to use calipers. During examination of the bones and skulls, the items will be treated as "exhibits" from the crime scene and will be subjected to a chain of command and care during observation and analysis. The care and methodology used to examine the evidence "exhibits" will also be assessed with regard to professional and ethical treatment of items.

On each students website there will be reconstruction of a crime scene that their team agreed upon and the evidence that supports their claim, complete with photo documentation of all activities.

Further assessment can be made by a successful trial connecting criminal justice and law enforcement classes with art students to the weave the evidence analyzed by the "bone experts" in forensic science into life.

Teaching Methods

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

Forensic Science is a project based class which focuses on providing evidence for every claim made in criminal and civil cases. Students publish their findings from the lessons or cases on their website as their evidence that they have learned the skill. This project will begin with students becoming "experts" by working through a series of activities which focus on osteology and anthropology. We will read an excerpt of a case from "Bones" the TV show, this particular case highlights a skeleton found in a tree wrapped in a web. Teams will collaborate on strategies that were used to solve that case on the show and identify the deceased person and a possible crime scenario. Then we will read the rest of the script to compare possible solutions... do they match and make sense? Why or why not? Then as forensic teams, students will collaborate to identify the types of bones in the comparative kits and then to catalog them according to gender, origin and age. Then each team will construct a crime scene scenario with the forensic osteology kit since all of the bones and skulls in the osteology kit have a "story" to tell for example one of the ribs has a gunshot wound which has been covered by bone... indicating the wound was not fatal.... student teams will state the claim the bones make and their reasoning and evidence behind it being a part of their scenario. Photos will be taken and embedded in each students' Google site, as well as a crime scene sketch.

This project can be extended with the addition a mock trial by collaborating with Law classes. Forensic Students could be the expert witnesses while the Law classes could decide whose scenario is most plausible and contains the evidence to defend.

Timeline

What is the project timeline and the date of implementation?

Forensic Anthropology is studied after Spring Break, more specifically the 3rd week in March 2020, this unit would be so engaging for seniors especially during this time frame. We would spend 6 -8 (A/B) days from initial implementation to Google Website update to complete the project. If the evidence is sent to trial, additional days may be needed to complete the project.

Curriculum/System Support

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

The addition of bone study kits enhances forensic science because of inclusion of hands on comparative osteology and forensic anthropology. Additionally, the kits would be a wonderful way to connect many courses in cross curricular collaboration. Law Enforcement, Criminal Justice, Anatomy and Physiology, and even Art classes would benefit with a STEAM connection through this grant and many projects could be created.

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

Budget Item	Item Type	Unit Cost	Quantity	Total Cost
Forensic Anthropology K-12 Set	Instructional Supplies or Resources	3825.0	1	3825.0
shipping and handling	Other Expenses	95.0	1	95.0

BUDGET TOTAL 3,920

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)
Courtney	Sharkey	courtney.sharkey@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 01/11/2019

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 **

No actions possible.

Comments

Tara is always excited about her content. She presents at conferences. She is passionate and creative!

State Change History

State Change tara.allgood@allenisd.org
01/14/2019 15:24:32
Submitted

State Change *****
01/14/2019 18:08:41
Accepted

Grant Status

Grant Awarded Yes
 No

Award Amount 3920