| | |
|---|---|
| Grant Number | 1219 |
| Project Title | Speed, seasons, and heat...OH MY! |
| Please select the **MAIN** curriculum area your grant addresses. | Science |
| Does your grant have a technology component? (Will you have technology equipment, software, etc. in your budget?) | ○ No<br>◉ Yes |

## Primary Contact Information

| | |
|---|---|
| First Name | randall |
| Email | randall.mobley@allenisd.org |
| Confirm Email | randall.mobley@allenisd.org |
| Last Name | mobley |
| Phone Number | 972-727-0340 |
| Campus | Curtis Middle School |
| Main Subject | Science - Secondary |
| Grade(s) | 8 |
| I have co-applicants. | ☐ |

## Social Media

Please provide your work-related social media contact information.

| | |
|---|---|
| Facebook | |
| Twitter | |
| Other (please specify) | |
| Grant Number | 1219 |

## Campus/Student Information

| | |
|---|---|
| Your campus: | Curtis Middle School |
| Will other campus' be involved/impacted by this grant? | ◉ No<br>○ Yes |
| Your grade(s): | 8 |
| Will other grades be involved/impacted? | ◉ No<br>○ 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.)

This grant would help all 8th grade students in three different units. The digital velocity speed gun would allow students to record each others speed and calculate distance or time, given that variable. It would also allow for students to be able to differentiate between speed and velocity with a hands on, visual approach. The four seasons chart would be displayed in every classroom. It would help students who struggle with the seasons unit by illustrating the positions of the Earth around the sun. Finally, the heat transfer kit is an amazing, hands on model to demonstrate how heat transfers from one aluminum container to another. This will help students with the idea of conduction and heat transfer.

## 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.)

My target population is all 8th grade students here at Curtis. The digital velocity speed gun will be used during our physics unit. Students will walk, jog, or sprint from one spot to another and the speed gun will calculate how fast they are moving. We could even have a competition to see who can run the fastest as a part of our "Physics Olympics" activity. Students can then solve for distance or time given one or the other variable. Students will benefit from this technology tool by being able to use speed to solve for the other variables instead of calculating speed given distance and time. The four seasons chart is a great reference tool for all students in the classroom. It shows students how the position of the Earth relates to the sun, the four seasons, and the direct or indirect sunlight the Earth receives based on its position. The heat transfer kit provides a hands on lab for students to record the temperature of two different insulated containers (one hot water and one cold water) and how the heat is transferred over time. We will use our Labquest 2 recording devices and digital probes with this lab.

## Project Summary

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

Science can sometimes be difficult to understand. Through hands on labs, exciting activities, and graphics throughout the classroom, students can get a better grasp on hard to comprehend subject matter. The digital velocity speed gun, heat transfer kit, and four seasons chart will create learning opportunities for all students throughout the year!

## Allen ISD Goals/ TEKS

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

TEK 8.6B Students will differentiate between speed, velocity and acceleration. (8.4A) use appropriate tools to record and analyze data. 8.7A Students will model and illustrate how the tilted Earth rotates on its axis, causing day and night, and revolves around the sun, causing changes in seasons.

## Measurement

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

1) Students ability to utilize the digital speed gun to calculate speed of themselves or other objects in motion
2) Student centered learning through immersion of lab and subject matter
3) Student test scores on all assessments and quizzes
4) Teacher creating lessons and questions to help guide learning.
5) Modify activity for special needs students as needed

## Teaching Methods

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

1) Modeling / demonstrating each TEKS
2) Providing guided and independent practice using the equipment.
3) Providing small group, purposeful talk with guided questions surrounding the TEKS and content
4) Students will be working in small groups as well as independently to collaborative and discuss data collected and observed.

## Timeline

What is the project timeline and the date of implementation?

As soon as equipment is delivered we will implement into the lesson. We will continue to use the equipment throughout each lesson. The four seasons chart will remain up on the wall all year long.

## Curriculum/System Support

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

These projects enhance the Allen ISD curriculum by providing students hands on learning opportunities through small group settings to enrich the students learning in each unit needed. The speed device tool will allow for students to solve for speed in a completely different way. It will also promote teamwork in the classroom through our Olympics activity. The heat transfer kit will give students another amazing lab where students can obtain data with technology and relate that data to think critically about the "why?". The four seasons chart will promote a great classroom environment and give students a much needed tool to reinforce the subject matter about the Earth's revolution and the tilt of the axis which causes seasons.

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

| Budget Item | Item Type | Unit Cost | Quantity | Total Cost |
|---|---|---|---|---|
| Heat Transfer Kit | Instructional Supplies or Resources | 26.65 | 7 | 186.55 |
| Digital Velocity Speed Gun | Technology | 168.8 | 3 | 506.4 |
| Four Seasons Chart | Instructional Supplies or Resources | 79.75 | 5 | 398.75 |

BUDGET TOTAL 1,091.7

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) |
|---|---|---|
| Sonya | Pitcock | Sonya.pitcock@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 Randall D Mobley Jr

Date 01/31/2019

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

Thank you for considering this grant. Our students would greatly benefit from more visual and hands on science tools.

## State Change History

State Change randall.mobley@allenisd.org
01/31/2019 10:06:05
Submitted

State Change ******
02/01/2019 07:54:00
Accepted

## Grant Status

Grant Awarded
- ○ Yes
- ○ No

Award Amount 1092