

Grant Number 1197

Project Title Dichotomous Key Activity

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 Yes

### Primary Contact Information

First Name nathaniel

Email nathaniel.west@allenisd.org

Confirm Email nathaniel.west@allenisd.org

Last Name west

Phone Number 903-647-3319

Campus Curtis Middle School

Main Subject Science - Secondary

Grade(s) 7

I have co-applicants. 

### Social Media

Please provide your work-related social media contact information.

Facebook None

Twitter None

Other (please specify) None

Grant Number 1197

### Campus/Student Information

Your campus: Curtis Middle School

Will other campus' be involved/impacted by this grant?

 No Yes

Your grade(s): 7

Will other grades be involved/impacted?

 No Yes

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

8

### 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.)

Students do not have many opportunities to observe biodiversity and variation in their everyday lives. This can make it a challenge for students to understand Variation, Natural Selection, and properly identify organism. Students have difficulty identifying organisms and using a dichotomous key when they cannot visualize, touch, and inspect the organism they are identifying especially if they have not seen something similar in person. With these activities students will have a more hands on experience that will be easier for students to relate to while giving them exposure to more variation and biodiversity.

### 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.)

The target population for this grant is all 7th grade students. They will benefit by having a hands on experience that allows them to inspect and manipulate the organisms they must identify. Twenty-six real tree leaves have been collected and assembled into one of the kits. Students will have the opportunity to classify objects, identify leaves using a simple key, create leaf art and explore leaf morphology and adaptation. In the other kit each of the major classes of arthropods is represented in the context of common and unique characteristics. Includes 15 arthropods and extensive background information about arthropod diversity, life histories and classification. The activities will be utilized during the Natural Selection, Variation, and Identification units.

### Project Summary

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

The two Dichotomous key activities allow for students to inspect and manipulate models while identifying organisms. Activities include classifying objects, identifying leaves and arthropods using a simple key, creating leaf art and exploring leaf morphology and adaptation.

### Allen ISD Goals/ TEKS

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

7.11A: Examine organisms or their structures such as insects or leaves and use dichotomous keys for identification

7.11B: Explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival such as migration, hibernation, or storage of food in a bulb

### Measurement

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

Effectiveness will be evaluated in the following ways:

Students correctly identifying the organism

Students able to answer rigorous questions related to identification and variation

Students able to create a dichotomous key based on things in their life

Formative and summative assessments during the unit and after the unit

### Teaching Methods

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

There will be a variety of teaching methods used with this resource. The teacher will facilitate lab stations and collaborative work. Students will participate in classroom discussions, small group purposeful talk with guiding questions provided by the teacher.

### Timeline

What is the project timeline and the date of implementation?

The Natural Selection unit takes up about 5 weeks of our curriculum. We begin this unit in January and finish it in February. We would implement this project 2019-2020 and use it every year after that. This could also be used for our 8th graders to review for science STAAR testing in April.

### Curriculum/System Support

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

We are confident student learning will improve by utilizing this resource. This resource will enhance the same studies we already teach by providing opportunities for students to engage with the concepts in a way that is more meaningful and relevant to their lives. It will provide students with a more hands on experience that allows them to manipulate and relate to the study on a more personal level.

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

Budget Item	Item Type	Unit Cost	Quantity	Total Cost
Arthropod Classification-Super Value Kit	Instructional Supplies or Resources	35.55	7	248.85
Leaf Identification-Super Value Kits (Set A)	Instructional Supplies or Resources	60.65	3	181.95
Leaf Identification-Super Value Kits (Set B)	Please choose one	60.65	2	121.3

BUDGET TOTAL 552.1

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 Nathaniel West

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 opportunity for our students.

### State Change History

State Change nathaniel.west@allenisd.org  
01/31/2019 15:22:10  
Submitted

State Change \*\*\*\*\*  
02/06/2019 11:47:23  
Accepted

### Grant Status

Grant Awarded  Yes  
 No

Award Amount 553