QSM SAMPLE PROPOSAL – GRADE 3 SCIENCE

The following sample proposal should be used to gain a better understanding of the grant application questions and components. Copying or including any part of this sample in your proposal will be considered plagiarism and your proposal will be disqualified.

I. Project Overview (9 points)

What is the approximate number of students that will be directly impacted by your project?

75

Which grade band levels will your project impact?

☒ PK-3 ☐ 4-8 ☐ 9-12

Which subject does your project fall under?

☐ Mathematics ☒ Science ☐ STEM

What class(es) will your project impact?

Three 3rd grade science classes

Standards Sources

Identify source of the standards. Louisiana Student Standards should be given priority over national standards. National standards can be used if Louisiana State Standards are not available (e.g., upper level subjects). If other is selected, identify the source of the standards.

- ☐Louisiana Student Standards for Mathematics
- ☒Louisiana Student Standards for Science
- ☐Louisiana's Birth to Five Early Learning Development Standards
- ☐Computer Science Teaching Association Standards
- ☐Standards for Technological and Engineering Literacy
- ☐International Society for Technology in Education
- ☐Advanced Placement
- ☐Common Core Standards for Mathematics
- ☐Other

Standards Outline

Provide the following information for each standard.

a. Provide a standard (by code and text) addressed by this project.
b. List students' actions associated with the standard.
c. List evaluation methods associated with the standard.

Standard 1

1a. *3-LS4-1– Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.*
1b. *Students will analyze the type, size and distributions of fossil organisms using the maps and the fossil replicas.*
1c. *Students will complete a quantitative and qualitative fossil data chart to showcase their understanding of the different characteristics' fossils possess and how these characteristics can assist us in understanding the environments in which they lived long ago.*

Standard 2

2a. *3-LS4-4– Make a claim about the merit of a solution to a problem caused when the environment changes and they types of plants and animals that live there may change*
2b. *Students will examine how environments change in ways that affect a place's physical characteristics which can affect the organisms living there and make a claim about how different solutions will produce results.*
2c. *An exit ticket featuring students' explanation of environmental changes affecting organisms will be completed. This exit ticket will also demonstrate students' ability to make a claim about the merit of a solution to a problem caused when the environment changes and organisms are affected.*

Project Summary

Provide a brief summary of the project that addresses the items being requested and how this project will increase students' content knowledge, skills, and/or practices of the listed standards. (50-120 words)

Students will use the fossil kits to examine fossils and the environments in which they lived long ago. These materials will increase students' understanding of the organisms that lived in the past and the nature of their environment by engaging them in activities focused on measurement and analysis of fossils and ecosystem dynamics.

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II. Rationale

State the primary motivating factor in proposing this project for the students (e.g., students' weakness, new curriculum, innovative project, challenges as a result of demographics, etc.). Include evidence supporting the motivating factor (e.g., student data, past experience, observation, education literature citations, etc.). (150-250 words)

This project is important to implement with my students because we are currently implementing a new curriculum that is aligned with the Louisiana Student Standards for Science to better understand the environment that organisms lived in long ago. This new curriculum includes activities where students are collecting data about fossils by measuring photos of the fossils. In addition to this, students also look at maps to determine the environment in which these organisms lived long ago. Without these requested hands-on components, students will have a difficult time collecting measurements and examining the locations of the fossils.

These activities are identified because in the past, students have struggled with collecting data by looking at photos of fossils. Having replicas of fossils for students to measure will assist them in collecting more accurate data. Using large scale maps and the eras of life posters will help students better visualize where in the world the different types of fossils are located. Having these posters that show the location of different fossil types will assist students in better understanding organism population change because of the changing environment.

III. Project Description

Timeline

Provide a timeline of project implementation.

This project will be implemented in the spring semester. Students will have 2 weeks out of an 8-week unit to complete the activities. Students will spend one week gathering quantitative and qualitative data about the fossil replicas. During this time, they will also compare their findings to the photos of fossils and participate in consensus discussions to determine the class fossil findings. The following week will focus on the location of the fossils and the environment that the organisms lived in long ago. Students will examine the eras of life posters to determine the relative time these organisms lived and use the maps to identify their location. After researching additional information (population/ weather data over time) about the locations, students will discover how the changing of the environment affected the populations of organisms who lived there.

Description

Describe the project's instructional plan and classroom activities that will be used to improve content knowledge, skills and/or practices of your students. The items requested in your budget should be included here. (350-600 words)

The beginning unit focus question is: What do fossils reveal about the past? Students will use their initial class model and driving question board developed at the beginning of the unit to examine fossil replicas through stations and collect quantitative data with their groups. Next, students will compare data collected to clay model fossils to understand how fossils form and what they reveal about the organisms that formed them. In pairs, students will complete a data collection form which will compile their quantitative and qualitative observations while I will look for accurate measurements of the fossil replicas and for students to describe relevant observations like distinguishing features of what makes the fossils unique.

Through station rotations in groups, students then observe fossils found in their own region to describe the past environments. Using the maps, they compare the past environment with the present- day environment to reveal how their region has changed over time. They also examine the organisms from the past and compare them to the present- day organisms to understand that the kinds of organisms that live in an area can change over time. During these activities, I will listen for evidence that the students used the maps correctly to describe their region's past environment and use evidence from their observations to support their descriptions. Students also complete exit tickets identifying the connections between the past environments and the present-day environment. I will also look for evidence that all students have identified there has been a change in the environment and they use evidence from their observations to support their reasoning.

The end unit focus question is: What happens to organisms when the environment changes? Students explore how changes in an environment affect the organisms that live there through an analysis of how changes in an environment affect the suitability of animals to that environment. In the culminating activity, students create a model to analyze how the construction of a parking lot could cause a long-term affect to an environment. Students see that this change would affect organisms that live in the environment and that some organisms would stay and survive, some would move in or out and some would die.

This proposed project is grade level appropriate because the analysis of fossil location and data are third grade science standards. If funded, this project will help students to understand these topics at a deeper level.

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IV. Evaluation

List and describe the evaluation method(s) that will be used to determine student growth during the implementation of your project. (150-300 words)

To identify students' baseline skills prior to implementing this project, a pretest will be given to assess their prior knowledge of fossils and their importance in providing evidence of organisms and environments from the past as well as their understanding of how a change in the environment can affect the organisms that live there.

During the project I will determine student growth by using qualitative and quantitative data collection sheets and exit tickets. A rubric will be created, and students will be scored based on their ability to document the correct measurements of the fossil replicas as well as their ability to clearly articulate their observations and inferences by using the maps to determine the relationship between environments and the organisms that lived there. Throughout the project implementation there are many opportunities for me to formatively assess the students' understanding of the concepts.

Identify the target outcome(s) for student success. Indicate and describe the criteria for determining success at achieving the target outcome(s). (50-150 words)

My target outcome is my students scoring an 85% or higher on the post-test focused on the standards 3-LS4-1 and 3-LS4-4. Upon conclusion of the implemented project, a post-test will be administered. These scores will be compared to the pre-assessment scores to determine student mastery of the standards.

V. Budget (8 points)

Budget items includes equipment and materials that will be used for quality instruction to increase knowledge, skills, or practices in Math, Science, and STEM classes. The maximum award is $1,000 for PK-2 proposals, $1,500 for 3-5 proposals and $2,000 for 6-12 proposals.

The budget should include all QSM eligible items and QSM ineligible items that need to be purchased to successfully implement your project. If your budget includes QSM ineligible items and/or the total of QSM eligible items exceeds the award limitations, an explanation of how these items will be funded is required.

Click "+ New Item" to add a new budget item. For each item, specify if it is QSM eligible or QSM ineligible and fill in the Item Name/Description, Quantity, and Cost/Item. For QSM eligible items, the Vendor Name and Vendor Link is required.

QSM Eligible/Ineligible	Item Name/Description	Quantity	Cost/Item	Vendor Name	Vendor Link
Eligible	*Fossil Kits*	*13*	*$24.80*	*Carolina Biological*	Link
Eligible	*Eras of Life Chart*	*13*	*$19.30*	*Carolina Biological*	Link
Eligible	*Paleozoic Fossil Collection*	*2*	*$48.10*	*Carolina Biological*	Link
Eligible	*Cenozoic Fossil Collection*	*3*	*$48.95*	*Carolina Biological*	Link
Eligible	*Mesozoic Fossil Collection*	*3*	*$53.35*	*Carolina Biological*	Link

QSM Eligible Items Total: *$919.56*
QSM Ineligible Items Total: *0*
QSM BUDGET TOTAL: *$919.56*

Please indicate who will fund any overage for QSM Eligible items if needed. Select all that apply.

□ School Funded
□ District Funded
□ PTA
□ Private Company
□ Non-profit organization
☒ Not Needed- QSM Eligible Items within Total Limitations
□ Other

Please indicate who will fund the QSM Ineligible items if needed. Select all that apply.

□ School Funded
□ District Funded
□ PTA
□ Private Company
□ Non-profit organization
☒ Not Needed- Budget does not have QSM Ineligible Items
□ Other