

QSM SAMPLE PROPOSAL – KINDERGARTEN MATH

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?

24

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?

One kindergarten math class

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.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Louisiana Student Standards for Mathematics | <input type="checkbox"/> Louisiana Student Standards for Science |
| <input type="checkbox"/> Louisiana's Birth to Five Early Learning Development Standards | <input type="checkbox"/> Computer Science Teaching Association Standards |
| <input type="checkbox"/> Standards for Technological and Engineering Literacy | <input type="checkbox"/> International Society for Technology in Education |
| <input type="checkbox"/> Advanced Placement | <input type="checkbox"/> Common Core Standards for Mathematics |
| <input type="checkbox"/> Other | |

Standards Outline

Provide the following information for each standard.

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

Standard 1

- K.G.B.4 – Analyze and compare two- and three dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length. Students will analyze the type, size and distributions of fossil organisms using the maps and the fossil replicas.*
- Students will analyze 2D and 3D shapes through sorting and discussion activities.*
- Teacher will observe/listen to their discussions for evidence of accuracy and have students draw their sortings as documentation.*

Standard 2

- K.G.B.5 – Model shapes in the world by building shapes from components and drawing shapes.*
- During unstructured and structured activities, students will build and draw models of shapes using a variety of materials. (magnetic toys, straws/marshmallows, clay, art paper, etc)*
- Completed models and drawings will be evaluated for accuracy using a rubric. (Students will take pictures of their products using the purchased cameras.)*

Standard 3

- K.G.B.6 – Compose simple shapes to form larger shapes.*
- During unstructured and structured activities, students will use shape manipulatives (ex: tangrams, 2D/3D shapes) to design new shapes with the component parts.*
- Completed models and drawings will be evaluated for accuracy using a rubric. (Students will take pictures of their products using the purchased cameras.)*

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 explore and manipulate the variety of shape manipulatives purchased with this grant to deepen their understanding of the attributes of 2D and 3D shapes. They will compare and contrast shape properties and copy/draw/build 2D and 3D simple and complex shapes. The cameras will be used for the students to take pictures of geometric shapes in their environment that they will then replicate with the manipulatives. Young children need ample hands-on opportunities in addition to looking at pictures or hearing descriptions, to understand new concepts.

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 hands-on learning is particularly important for young children, as this is how they are programmed to learn. In past years, I've noticed that my students struggled with mastering the concepts when all they had were worksheets with pictures of shapes. Children learn from observing, copying, and experimenting with their hands and body as soon as they are born, and play continues to be the most important way of learning new skills. These hands-on activities will promote deeper understanding of the kindergarten standards required at this grade level.

According to the Apple Tree Kindergarten website (and supported by many other research works), there are multiple benefits to hands-on learning including but not limited to, more fun and engaging, allows learning from real experiences, encourages interaction with nature, allows exploration of all senses, engages multiple areas of the brain, and builds fine motor skills. All activities planned for this unit are hands-on.

III. Project Description

Timeline

Provide a timeline of project implementation.

November 2021: Receive funding allocation; order materials

December 2021: Introduce/teach prerequisite geometry standards (K.G.A 1-3 identify and describe shapes: 2D and 3D)

January 2021 (2 weeks): Project Implementation

***Day 1:** take pictures of geometric solids around the school*

***Days 2-3:** introduce manipulatives and provide free exploration (teacher will observe student engagement and conversations to determine previous knowledge of content*

***Days 4-9:** Daily center rotations (each group will visit one station a day)*

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)

***Day 1:** Students will be divided into 6 groups of 4. Each group will have a teacher or parent volunteer that will assist them on a walking field trip around the school campus to explore geometric shapes in their environment. Students will take turns taking pictures of all examples they find. Robust conversations focusing on the names and attributes of the shapes they observe will be engaged.*

***Days 2-3:** As a whole class, the teacher will introduce all the new manipulatives that will be purchased with this grant. Then there will be 3 rotations each day for all students to have an opportunity to "play" with each of the materials in an unstructured situation. Students will rotate in the groups of 4 established the day before.*

***Days 4-9:** Each day, the students will engage in different structured activities with different manipulatives for 20-30 minutes (depending on student interest and engagement). At the end of each day, in a whole class setting, students will share their experiences and the teacher will engage students in conversations that promote use of correct mathematical vocabulary and developing concepts.*

- **MagnaTile Station-** TSW use magnetized 2D shapes to build 3D shapes. (K.G.B.5)*
- **Pattern Blocks Station-** TSW replicate designs on pattern design cards using pattern blocks. After replicating at least 3 different designs, they will design their own pictures and draw them. (K.G.B.6)*
- **Geostix Station-** TSW will use geostix to build 2D and 3D shapes and design their own shapes. (K.G.B.5)*
- **Tangram Station-** TSW replicate designs on tangram design cards using tangram pieces. After replicating at least 3 different designs, they will design their own pictures and draw them. (K.G.B.6)*
- **Geometric Foam Shapes-** TSW sort 3D shapes by various attributes and then explain their reasoning to a partner. They will then choose two different shapes to compare and contrast, recording their observations on Seesaw. (K.G.B.4)*
- **Computer-** TSW use a drawing program to draw and label 2D shapes and then print out their work. Afterwards they will play a geometric game using starfall.com. (This station is not funded through this project.) (K.G.B.5)*

***Day 10:** As a whole group, we will discuss all that we have learned over the past two weeks.*

***End of Quarter:** Final assessment of standards*

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)

Since the prerequisite skills for these standards will be taught prior to this project, I will use the results of that assessment as well as the observational notes that I plan to take during Day 2 and 3 of free exploration to gauge students' baseline skills.

During the project, I will determine student growth by evaluating the products that are produced at each station using a simple rubric that is aligned to the stated standards. Daily review of these products will guide teacher questioning and guidance the following day throughout the project implementation. Additionally, anecdotal notes will also be used as an informal evaluation tool. At the end of each quarter, I administer an individually administered quarterly assessment of all skills taught. These standards will be included on the Second quarter assessment.

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)

Student mastery of K.G.B.4, K.G.B.5, and K.G.B.6 is my target goal. I hope to have 100% of my students display mastery. I believe this is an achievable goal for my student population.

The prerequisite skills tested prior to this unit will also be included on the quarterly assessment, therefore a direct comparison can be made to determine if any change in mastery has occurred on those skills (if warranted). Additionally, the anecdotal notes collected during the exploratory stages will be compared to the notes taken throughout the project timeframe, along with the final assessment, to detect changes in understanding.

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, \$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 | <i>Kids Digital Camera with 32 GB SD Card</i> | 6 | \$19.99 | Amazon | link |
| Eligible | <i>Magna-Tiles Master Set</i> | 2 | \$129.99 | Lakeshore Learning | link |
| Eligible | <i>Pattern Blocks Design Cards</i> | 2 | \$16.99 | Lakeshore Learning | link |
| Eligible | <i>Plastic Pattern Blocks</i> | 2 | \$29.99 | Lakeshore Learning | link |
| Eligible | <i>Geostix</i> | 2 | \$29.99 | Lakeshore Learning | link |
| Eligible | <i>Tangrams</i> | 2 | \$24.99 | Lakeshore Learning | link |
| Eligible | <i>Geostix Activity Set</i> | 2 | \$24.99 | Lakeshore Learning | link |
| Eligible | <i>Geometric Foam Shapes</i> | 2 | \$29.99 | Lakeshore Learning | link |
| Eligible | <i>Jumbo attribute blocks</i> | 2 | \$29.99 | Lakeshore Learning | link |
| Eligible | <i>Shipping</i> | | \$6.99 | Lakeshore Learning | link |
| Ineligible | <i>Photo paper</i> | 3 | \$19.29 | Office Depot | link |
| Ineligible | <i>Color printer ink</i> | 3 | \$16.89 | Office Depot | link |

QSM Eligible Items Total: \$760.77

QSM Ineligible Items Total: \$108.54

QSM BUDGET TOTAL: \$869.31

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