Association for Excellence in Education

2019 - 2020 Grant Application Cover _Page 2

Title of Project: <u>"Tiny" Home Sweet Home</u>								
Curriculum Area/s:Construction II								
Grade Level/s:_11-12 Number of Students Involved:_100								
Amount Requested: \$10,000.00 Can this project be matched or assisted by other funds? ()Yes (X)No If yes, from where and how much?								
Yes (X) No.								
If yes, list the name/s of the original grant recipient/								
s:								
Is this proposal a resubmission of a grant for which you have received AEE								
funding? ()Yes $$ (X) No. If yes, check the appropriate space. This is second ($$)								
third () resubmission.								
Part 1. Complete the Project Description. This maximum two page description								

- **Part 1.** Complete the Project Description. This maximum **two page** description may be submitted in Word, Pages or PDF format. Use either 12pt. Calibri or Times New Roman font and one-inch margins on all sides of both pages. Any remarks past two pages will not be sent to reviewers. Omit names of grant writers and schools in the description and the budget spreadsheets.
- **Part 2.** Complete the General Budget Spreadsheet and the Speaker Budget Spreadsheet, if proposal involves guest speaker.
- **Part 3.** Submit the Project Description, the Budget Spreadsheet/s, Cover Page 1 and Cover Page 2 to Ginger Towery at the TPSD Central Office. Proposals must be received on or before the deadline.

"Tiny" Home Sweet Home

Overview: "Tiny" houses offer big benefits. "Tiny" houses may provide financial freedom, unique spaces, environmental solutions, and quality customization. America is in love with "Tiny" houses boasts TV shows such as "Tiny House Nation" and "Tiny House Hunters." Additionally, movies, documentaries, and Pinterest provide people with countless "Tiny" house building/living ideas. Having the opportunity to combine the hands-on experience of building a house along with the current curriculum framework taught inside the classroom will provide the ultimate and collaborative learning opportunity to connect classroom and "real world" experience for students. Upon completion, the "Tiny" house will be marketed and raffled off to the community. Proceeds will be used to continue building "Tiny" houses each year.

Need: Constructing a "Tiny" house will provide the ultimate collaborative, engaging experience for 11-12th grade students, other teachers, organizations, and the community. Students will gain the necessary skills to build their own small house, or start a business building "Tiny" houses for others. Students enrolled in Construction II have already completed Construction I, which provided them with the knowledge of maintaining a safe work environment and proper use of building materials, hand and power tools. As part of the engagement process, a multidisciplinary learning approach will insure the students incorporate Science, Technology, Engineering, and Math studies into the hands-on build project. Research has shown that when students who participate in hands-on learning (1) identify with the instructional material better; (2) feel a sense of accomplishment upon completion; and (3) apply experiences to other learning situations. The "Tiny" house build yields a tangible product whereby students have worked to construct as part of a team engaged in learning that can contribute to success in high school, post-secondary, and applied to life. Engaging school students with an interesting, hands-on and practical project like building a "Tiny" house is a great way to teach useful skills they can use to build a stable financial future, and to understand there's a huge spectrum of places and spaces that people call home. Some examples of academic and social lessons students have learned from building a "Tiny" house include

- Technology design: plans created in Adobe Illustrator and Google Sketch-UP;
- Economics: financing a tiny home, zoning and transportation requirements, and costs;
- Math: utilizing geometry and engineering formulas to figure out angles, area, material costs and structural stability;
- Natural resources: recycled and reusable materials; renewable resources, solar panels, and battery-charged energy;
- Science: mechanisms of heat loss and gain, radiation, convection, conduction, evaporation, shelter insulation, green design, water collection and purification, energy production and efficiency;
- Social issues: learning about poverty; access to natural resources; tiny homes as an affordable housing option; and poverty-related service projects.

Purpose/Objectives: The objectives for this grant are based on the Mississippi National Center for Construction Education and Research (NCCER) curriculum objectives which include: (1) Identify and describe the components of a wood floor framed foundation. (2) Identify and explain wall framing systems. (3) Identify and describe ceiling and rafter framing, building envelope, and roof systems. (4) Identify and describe Construction careers and employability skills within the construction industry. Building a "Tiny" house would align perfectly with the established curriculum and help students technically master each objective.

Implementation Plan: My plan to implement this grant will follow in this order:

August-October 2019: (1) Students will use the hands-on experience to identify and describe the building components of a wood floor foundation. (2) Students will understand and explain how the components work together to form the strength of the foundation of their "Tiny" home build. (2) Students will complete the building of the foundation floor framing system in compliance with curriculum, foundation plans, and respective building codes.

November 2019-January 2020: (1) Students will perform the technical tasks to identify and describe the building components of framing the wall system(s). (2) Students will understand and explain how wall framing systems are constructed in accordance with design and codes. (3) Students will complete the framing of the wall systems in compliance with curriculum, drawings, and respective building codes.

February-April 2020: (1) Students will perform the technical hands-on tasks to identify and describe ceiling and rafter framing. (2) Students will understand and explain how ceiling and rafters are laid out and cut in conformance with drawings and code. (3) Students will complete the framing of the ceiling and rafters in compliance with curriculum, drawings, and codes.

May 2020: (1) Students will identify and describe career, employability skills relative to home building. (2) Students will understand and explain how characteristics, team work, and soft skills relate to building a home. (3) Students will complete or update his/her resume, and a survey or essay documenting the build experience.

Evaluation: I will pre-test students to determine a starting point for monitoring progress. Each individual student will also undergo performance profile testing (PPT) as part of the curriculum. PPTs are hands-on performance tasks designed to insure each student is connecting classroom objectives with physical performance of assigned construction skills tasks. Students will continue to be tested, both written and PPT as they complete each module. Students will be comprehensively tested in April of the second semester, as this course is inclusive of two semesters. Students will complete a survey or essay of their documented experience of the build. The AEE members, community, and other classes will be invited to visit and offer suggestions or comments regarding the build.

ASSOCIATION FOR EXCELLENCE IN EDUCATION (AEE)

GENERAL BUDGET

WORKSHEET FOR BUDGET DEVELOPMENT

(See Instructions at Bottom of the Page)

GRANT NAME:	"Tiny" Home Sweet Home
PAGE ONE	

BE SURE TO INCLUDE SHIPPING & HANDLING EXPENSES BELOW.

ITEM TO PURCHASE				VENDOR	PAGE 1 OF 3	
	QUANITY PRICE		TOTAL		REUS YES	
EXAMPLE		\$2.25	\$2.25		X	
Floor Framing Pkg.	1	\$3,500.00	\$3,500.00	Tupelo Lumber/Lowes/HD		Х
Wall Framing Pkg.	1	\$3,000.00	\$3,000.00	Tupelo Lumber/Lowes/HD		Х
Ceiling/Rafter Pkg.	1	\$3,500.00	\$3,500.00	Tupelo Lumber/Lowes/HD		х
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TOTAL PAGE 1			\$10,000.00			
T(OTAL PAG	ES 1, 2 & 3	\$10,000.00			

INSTRUCTIONS: Insert quanity in Column B and price for each in Coulmn C. The total will be calculated in Column D. Indicate if item is reusable by placing an "X" in either Column F or G.