

TEF Great Idea Grant Final Report

All Thompson Education Foundation (TEF) grant recipients must submit a final report to TEF by **May 31, 2026**. The final report is required. If you do not submit a final report for this grant by the due date, you will not be allowed to apply for future TEF grants.

Name: Sara McCallum

School: Truscott Elementary

Project Name: The Melody Makers Project

Award Amount: \$1,000.00

Objective of project as stated in the grant application:

The Melodic Makers project proposes an innovative integration of Science, Technology, Engineering, and Mathematics (STEM) principles with musical arts for all fifth-grade students. The core purpose of this grant is to move beyond theoretical learning by providing students with hands-on, authentic engineering challenges that culminate in the creation of a functional, beautiful object. The goal is multifaceted: first, to ensure every participating student successfully constructs a playable, four-string ukulele from a kit, thereby mastering basic assembly, measurement, and troubleshooting. Second, the project aims to demystify sound and acoustics by teaching students how material tension, vibration, and geometry interact to produce musical pitch and tone, directly linking their efforts to academic concepts. The final goal is to foster a sense of personal accomplishment and collective expression, as the students will share their creations in a final, class-wide performance using the instruments they personally built.

The process of constructing a ukulele kit will significantly enhance a broad range of student skills, moving well beyond traditional rote learning. Critical thinking and problem-solving are immediately engaged as students must interpret technical diagrams and multi-step instructions, requiring them to analyze the relationship between various components before assembly. More profoundly, the act of learning to tune and play the instrument encourages creative expression. Academic mastery is bolstered by tangible application: students use mathematics for precise measurement when placing the bridge or determining fret ratios, and they gain a strong understanding of physics, specifically sound wave transmission, tension, and resonance, when they learn why their ukulele makes music. Finally, the project profoundly supports social-emotional well-being. The activity demands patience and perseverance, cultivating resilience as students work toward a long-term goal.

1. Describe how you implemented your project.

Once the ukulele kits were ordered we prepared the students by discussing how strings vibrate to create sound. The Librarian/Media teacher and I worked together to help the students build the kits over 3 hour long classes. The first day we only did the neck, nut and bridge. I then spent time using a

special screw driver to install the tuning pegs. Next we did the strings and the last class we used to decorate.

2. Please provide the results of your project. This information needs to correlate to the "measurements" provided on your original grant application. If you changed your measurements of success, please detail the reason for the change with your results.

Each 5th grade student built and played their ukulele for the final concert in March. We went over how to tune them and how they work. The measurements of success changed a little once I saw what the building kit included. There was not as much extra information as I thought there would be. Overall each student did exactly what I was hoping for. They followed directions and were able to stay together as a group when we worked together. I have included a picture of them playing the ukus from our concert as well.



3. Did anything surprise you or your students during the implementation of your project?

The majority of the students did not know how to tie a simple knot which was very surprising. The students were more surprised with how easy it was to build something that they then were able to make music with.

4. Please provide a copy of the final budget for the grant (you may attach a separate sheet of paper).

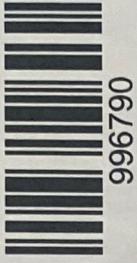
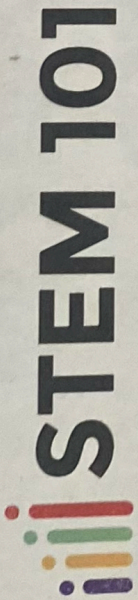
On separate sheet.

5. Do you feel the project can be easily replicated in additional classrooms in Thompson School District, and, if so, is there any advice you can share?

I do think this project can be easily replicated. The main advice I would give would be to use this kit with older students. The 5th graders understood everything but did not have the fine motor skills or finger dexterity to do all the work with the small screws.

Optional:

6. Comments for the grant committee or TEF board.



996790

PACKING SLIP

Ship To:

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211 W 6TH ST
LOVELAND, CO 80537-5547, US

Order Number: 996790
Order Date: 01/13/2026
Reference: #1141
Ship Method: Standard
Bill To Name: Truscott

28

Quantity	Item	Price	Total
28	S1-SET-UKULELE-V2 Build Your Own Ukulele	\$28.80	\$806.40
Special Instructions:		Subtotal:	\$806.40
		Shipping:	\$60.75
		Tax:	\$0.00
		Order Total:	\$867.15

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