

Project Summary: The idea of teaching math and music together has been a dream of mine for over a year now. This year, I was determined to create a tangible product of my ideas. The concept of Mathemusik, German for math and music, started as an interest in teaching artistry without any inkling of a lesson plan. Thankfully, with the help of my partner, Claudio, and my theory and math professors, I was able to produce a cohesive and informative presentation. The planning of the event and presentation began immediately after receiving the notice of being a finalist for the award. My applied professor and I began brainstorming pieces of music that could potentially be used to teach math concepts; we determined that because *Elegie for Horn and Piano* by Poulenc started with a twelve-tone row, it would be perfect for this presentation. After it had all come together, we had three presentations at the same school, all on March 23 of this year.

Lessons Learned: One of the many obstacles I faced arose from creating a plan to assure my message came across to the students. After devoting all my time and energy on one lesson plan, I developed a newfound gratitude for my teachers and professors for creating their lesson plans every day. In addition, I experienced communication challenges with the teachers at the middle school. However, I overcame these challenges by emailing a wider array of teachers, which resolved the issues.

The biggest surprise of this entire project was how much I loved teaching. The math teacher from Alcorn Middle School even asked me after the performances if I wanted to teach full time. I kindly declined the suggestion, but I noticed that I definitely want to continue to shape young minds around music and math every chance that I get. After feeling the energy of the middle schoolers and being able to enjoy the interactions I had, I knew that this would not be the last time Mathemusik performed.

Next Steps: After sharing my perspective on music and math with the students, I talked with the math teacher from Alcorn, and we hoped to collaborate for future presentations. It would be beneficial to focus my teaching on math or music, or both. My overall goal is to provide free and easily accessible resources for students and teachers to learn about math and music. To expand the reach of music and math around the community I have created a website, mathemusik.github.io, dedicated to information on myself, my projects, and resources for learning. My plan is to send my website to teachers around the area in order to present the information I have learned through my projects and promote innovative learning for the future. Mathemusik is a jumpstart into new and creative ways of teaching and integrating the arts into academic subjects.