Chad Baker CMaP PROJECT

Project Title: Optimal Sound Positioning
Created by: Chad Baker
Class: Band I

Project Description	Students Map out three spaces and then map the optimum seating of a listener within each space. Within three designated spaces students will predict the optimum placement of a listener and then predict the optimum listening field for an audience of 50. Then, using a GPS unit, students will plot their positions within those designated spaces and submit a rating of 1-10 critiquing the volume and "Tone clarity" of the instrument. A discussion will follow if there are any benefits to performing in those specific spaces. The three spaces are as follows,a grass field, a small theater, and a gym. Students will listen to a single note played (mezzoforte) on a Trumpet, a Flute, and a Clarinet, then each student will predict the optimum seating for a single listener for each instrument and then predict the optimum seating area for a listening audience of 50 listeners for all three instruments. Each student will plot their own and single point on a map along with a critique rating. The plots will then be combined onto a map for the class to extrapolate and discuss.

Community Issue or Problem Selected -How project evolved?	Students are always interested in performance spaces and rehearsal spaces and how the acoustics account for better listening and tone creation. (on a side note - students become more spatially aware of their sound and how important sound production techniques are in performance)
Community Partner(s)	Instrumental performers WCSD facilities managers and Administration
Project Objectives	Students will know the basics of using a GPS unit. Students will contribute to their own curriculum providing the instructor with relevant data. Students will know the optimum placement of an audience, as well as a single listener.
Utah Core Standards/Objectives	**CREATE (L1.MI.CR.)** Students will conceptualize, generate and organize artistic ideas and work. They will complete and refine musical works. **-Standard L1.MI.CR.3:** Develop aural skills. -**Standard L1.MI.CR.5:** Evaluate and refine musical ideas, applying teacher-provided criteria and, with guidance, using selected elements of music. **PERFORM (L1.MI.P.)** Students will analyze, interpret, and select artistic work for performance. They will develop techniques and concepts to refine artistic work, and express meaning through the presentation of musical works **-Standard L1.MI.P.3:** With guidance, make appropriate interpretive musical decisions as a

	soloist/ensemble. **-Standard L1.MI.P.5:** Demonstrate fluency in the following technical performance skills:Ensemble listening a. Tuning b. Targeted practice techniques c. Balance/blend d. Rudimentary ear training -**Standard L1.MI.P.7:** Demonstrate productive rehearsal habits, both as an individual and as an ensemble member. **RESPOND (L1.MI.R.)** Students will perceive and analyze artistic work and process. They will interpret intent and meaning, and apply criteria to evaluate artistic work and process -**Standard L1.MI.R.1:** Respond to a musical performance by identifying the musical elements within a piece and in a given context, discuss their effect on both listener and performer, and exhibit appropriate performance demeanor and audience concert etiquette. -**Standard L1.MI.R.5:** Use self-assessment to judge and improve the quality of musical performance. **CONNECT (L1.MI.CO.)** Students will synthesize and relate knowledge from personal and collaborative experience to make and receive art. They will relate artistic ideas and works with societal, cultural, and historical context to deepen understanding -**Standard L1.MI.CO.3:** Experience how music connects us to history, culture, heritage, community, and to other academic subjects.
Essential Question(s) -Spatial Issue	where is the optimal space for a listener and audience to be in comparison to a performer?
Assessments (rubrics, scoring guides)	Rubric for map assessing waypoints for listening spots, and labels for space features, compass, scale, and rating data.

Project Products	Students will create three maps each with the performance location, listening locations and their respective critique ratings,
Project Timeline (include a step by step Procedures)	Unit 1: introduce technologies. Unit 2: Present Query, collect predictions. Unit 3: Student data collection activities. Unit 4: Use computers for data analysis. Unit 5: Use student data and predictions for Discussion.
Resources Needed	Performance Spaces GPS units/equivalent Mapping software
Skills Required	**Basic computer skills** **Knowledge of GIS software and GPS systems.**
Project Team Member Roles	**Teacher(s): demonstrate use of GIS/GPS, provide rubric and other background informations and necessary support** **Students: Sincerely plot listening points on a map with correlating critique ratings of volume and clarity for all three instruments.** **Partner(s): perform Concert "C" at MezzoForte at performance spot**
Celebration/Presentation	Students will perform a concert in the chosen space with the

	optimum seating arrangement for an audience.
Project Evaluation	students will also write a short or brief description of their opinion along with their map.
Project Bibliography	All students and performers will be given credit to this project. (I am not sure if I fully understand the whole Bibliography thing….whoops)
Plans for Future CMaP Activities	Mapping out Parade routes and Mark times for City. Letting the city know how long it takes for a student to walk and play a route.

Optional:
-Lesson Plans
-Student Artifacts
-Publicity