Performance-Based Task

Name of Task: Music Class	**Grade Level: 2**

BEGIN WITH THE END IN MIND: What will we learn about the students' mathematical understanding from this task?

- Ability to create arrays, skip count
- Knowledge of odd and even numbers
- Ability to write an equation related to model
- Ability to communicate mathematical in writing

Common Core Content Standards assessed through this task: (choose 3-5 standards at your grade level that can be clearly assessed through this task. Standards need not be from the same domain but should relate to the task).	**Standards for Mathematical Practice assessed through this task:** (choose 2-3 Standards for Mathematical Practice that can be clearly assessed through this task.)
MCC2.OA.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. MCC2.OA.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	1 Make sense of problems and persevere in solving them. 2 Reason abstractly and quantitatively. 8 Look for and express regularity in repeated reasoning.

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Use the space below to outline your task. Keep the following in mind…

Does this task...

- reflect a real-world task/scenario-based problem?
- require application of mathematical concepts and assess related Common Core content Standards?
- Require students to engage in 2-3 Standards for Mathematical Practice?
- Allow for multiple approaches?
- Require a high level of cognitive demand?

Miss Mandolin is a new music teacher and needs to arrange the chairs in her classroom. Most of her classes have 20 students. What are the different ways to arrange the chairs in her classroom to seat the students in even rows?

Some of her classes have 24 students. What are the ways Miss Mandolin could arrange the chairs to evenly seat all 24 students?

Assessment: How will you evaluate student work? Create a task-specific rubric. Apply the Exemplars levels– Novice, Apprentice, Practitioner, Expert – when creating your rubric.

Novice	The Novice may be able to draw the twenty chairs but will not be able to group them in even rows. Little or no math language will be used, and diagrams will lack labels.
Apprentice	The Apprentice will have a partially correct solution. S/he may be able to draw all of the chairs. The Apprentice may neglect having an even number in each row. Some math language may be used, or the diagrams will be labeled.
Practitioner	The Practitioner will achieve a totally correct solution. All parts will be labeled, and the approach used will be clear. Accurate math language and diagrams will be used to communicate the solution.
Expert	The Expert will have a correct solution. S/he will comment on the pattern and may make other mathematically relevant observations. The Expert will use charts as well as diagrams to achieve a solution.

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NCTM Process Standards and the CCSS Mathematical Practices

NCTM Process Standards	CCSS Standards for Mathematical Practice
Problem Solving	1. Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.
Reasoning and Proof	2. Reason abstractly and quantitatively. 3. Critique the reasoning of others. 8. Look for and express regularity in repeated reasoning
Communication	3. Construct viable arguments
Connections	6. Attend to precision. 7. Look for and make use of structure
Representations	4. Model with mathematics.