

Please cite as: Running, D., & Kern, J. (2016). Design and build a musical instrument. Bridgewater State University.

Instrument

	Totally Inadequate (0)	Poor (1)	Acceptable (2)	Outstanding (3)
Complexity/ Craftsmanship	Plastic tub and rubber bands	Instrument looks like it is in danger of falling apart.	Instrument won't stay in tune for more than a minute or two	You built a well-made and sturdy instrument that stays in tune
Pitches are in tune (correct frequencies)	Does not have all five pitches or all notes are out of tune	Some notes out of tune	All five notes in tune	More than one octave, all in tune
Tone Quality	Can't even be heard by the musician	Tones are hard to hear more than two feet away or are not 'pure' (e.g. the instrument rattles or produces unintended frequencies)	Tones are as clear and strong as expected with this type of instrument	Tones can be easily heard by everyone in the class and are not dissonant
Aesthetics/Creativity	No thought as all given to appearance	Very little thought was given to the presentation of the instrument	Design shows some originality and attractiveness.	Very attractive or original design. People would buy this.

Lab Report

	Totally Inadequate (0)	Poor (1)	Acceptable (2)	Outstanding (3)
Error Free and Professional	Not typed or lots of errors throughout	Several errors	Only one or two errors in grammar	No grammatical errors.
Calculations and Data	No data or no calculations	Data and calculations hard to understand or incomplete	Data and calculations complete and readily understandable but there still remains some unaccounted for material	Data and calculations complete and readily understandable
Discussion of the Science	No discussion of the science included OR many inaccuracies throughout	More than two factual errors and/or an incomplete discussion of the science	One or two errors in the science and/or missing one element in the discussion of the science	A completely correct and thorough discussion of the science including: resonance, mode of vibration, harmonics, pitch/frequency, etc.

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Individual Music Composition*

	Totally Inadequate (0)	Poor (1)	Acceptable (2)	Outstanding (3)
Aesthetic Appeal	Does not present an effective general impression. Musical ideas do not hold the listener's interest.	Includes at least one interesting musical idea. Yet, the overall impression is not effective.	Includes some interesting musical ideas. The general impression is pleasant and moderately effective.	Strong aesthetic appeal and general impression. Would be enjoyed by many listeners. Keeps the listener interested.
Creativity	No variety or exploration of the instrument's musical elements (range, timbre, dynamics, tempo, rhythm, melody).	Little variety or exploration of the instrument's musical elements. One-trick pony.	Involves some original aspect(s) or manipulation(s) of musical idea(s). Explores and varies at least one musical element.	Includes very original, unusual or imaginative musical ideas. Explores and varies at least two musical elements.
Craftsmanship	Gives no sense of a completed musical idea. Exhibits no clear beginning, middle or end section. Form appears random rather than organized.	Presents one complete musical idea. However, composition lacks overall completeness. Fails to use musical elements to organize musical ideas or form.	Ending feels final. Uses at least one musical element to organize the musical ideas and overall form.	Presents at least one complete musical idea. Has a coherent and organized form with a clear beginning, middle, and end. Uses musical elements to organize musical ideas or the form. Tells a story!

*Rubric is a modification of one presented by: Hickey, M. (1999). Assessment rubrics for music composition. *Music Educators Journal*, 84 (4), 26 -33.

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***Ensemble Music Composition**

	Totally Inadequate (0)	Poor (1)	Acceptable (2)	Outstanding (3)
Aesthetic Appeal	Does not present an effective general impression. Musical ideas do not hold the listener's interest.	Includes at least one interesting musical idea. Yet, the overall impression is not effective.	Each instrument has at least one interesting musical idea. Yet, the overall impression is not cohesive.	Each instrument has at least one interesting musical idea related to its specific strengths. And the overall result is a whole that is bigger than the sum of the parts.
Creativity	No variety or exploration of the different instruments' musical possibilities (range, timbre, dynamics, tempo, rhythm, melody).	Little variety or exploration of the instruments' musical elements. One-trick pony.	Involves some original aspect(s) or manipulation(s) of musical idea(s). Explores and varies at least one musical element.	Includes very original, unusual or imaginative musical ideas. Explores and varies at least two musical elements.
Craftsmanship	Gives no sense of a completed musical idea. Exhibits no clear beginning, middle or end section. Form appears random rather than organized.	Presents one complete musical idea. However, composition lacks overall completeness. Fails to use musical elements to organize musical ideas or form.	Ending feels final. Uses at least one musical element to organize the musical ideas and overall form.	Presents at least one complete musical idea. Has a coherent and organized form with a clear beginning, middle, and end. Uses musical elements to organize musical ideas or the form. Tells a story!