

Name \_\_\_\_\_

Due Date: February 10, 2016

### Sound Performance Task

Every student in Mrs. Clark's 4<sup>th</sup> grade Science class will design and make a musical instrument as their performance task for our Term 4 Science Unit on Light and Sound. Students are required to do the following:

#### 1. Get ideas for your instrument

- From books at the public or school library
- The Virtual Museum of Music Inventions <http://www.musicinventions.org>
- <http://students.ed.uiuc.edu/langellr/activity1.html>
- <http://homeschooling.gomilpitas.com/explore/homemademusic.htm>
- <http://www.philtulga.com/HomemadeMusic.html>
- <http://www.creative-music.org/tag/homemade-instruments/>

2. Make your instrument at home. You may ask your parents or siblings for assistance, but I want the work to be your own. Work that is not your own will not be accepted!

3. Practice playing your instrument. Can you improve the sound?

4. Decorate and name your instrument.

5. Write a five paragraph paper about your instrument. Be sure to use these words: pitch and volume.

6. Demonstrate your instrument to the class. Be able to explain how it was made and how it produces sound.

### Essay Assignments Requirements

Write an introduction to your musical instrument. Include the following:

The name of your instrument  
How you got the idea for making it  
The instrument family to which it belongs (string, percussion, woodwind, brass)  
Other interesting details, for example: describe what it looks and sounds like. Use the words "pitch" and "volume".

#### Paragraph Two - Materials

Write about the materials you used for your instrument. Explain where you found the materials.

#### Paragraph Three - Procedure

Write about how you made your instrument. Explain how your parents, siblings, or other adults helped you. Describe the parts of the instrument that you made yourself. Write about problems that you had in making the instrument and how you solved them.

#### Paragraph Four - Playing Your Instrument

Explain how to play your instrument. Explain how to change the "volume" or "pitch" of your instrument. If you can play your instrument more than one way, tell how and describe how the sound changes.

#### Paragraph Five - Conclusion

Write about your reaction to this project. Write about the things you liked about making a musical instrument.

Write about what you learned while you were making your instrument.

**Sound Performance Task Rubric****Science GPS: S4P2**

Students will demonstrate how sound is produced by vibrating objects and how sound can be varied by changing the rate of vibration.

- a. Investigate how sound is produced.
- b. Recognize the conditions that cause pitch to vary.

	<b>Maestro (Exceeds)</b>	<b>Professional (Meets Standard)</b>	<b>Amateur (Approaching)</b>	<b>Needs Practice (Below standard)</b>
<b>Quality of Construction</b>	Instrument is well constructed and nicely decorated. It is sturdy, neat, and will stand up to repeated playing.	Instrument shows some effort in construction and decoration. It is reasonably sturdy and neat and will stand up to being played more than once.	Instrument is fragile and will not stand up to being played more than once. There is little to no decoration.	Instrument is "slapped together" with pieces missing or falling off. There may be a total lack of decoration.
<b>Quality of Sound</b>	Instrument demonstrates changes of pitch (high & low) and/or volume (loud & soft). It produces a sound of distinctive and clear quality.	Instrument demonstrates changes in pitch and/or volume. It produces a clearly-heard sound.	Instrument cannot demonstrate any changes of pitch or volume. Its sound is weak and cannot be heard clearly.	Instrument does not produce any noticeable sound.
<b>Demonstration</b>	Without prompting, the student can tell how the instrument is made and how it produces sound, correctly using the terms "pitch" and "volume".	Without prompting, the student can tell how the instrument is made and how it produces sound, correctly using only one term "pitch" or "volume".	With prompting, the student can tell how the instrument is made and how it produces sound. Student uses the terms "pitch" and "volume" incorrectly.	With prompting, the student is unable to discuss the instrument. Student does not use the terms "pitch" or "volume".
<b>Essay</b>	Student includes all information and uses terms correctly.	Student includes most of the information using terms correctly.	Student is missing important info but uses terms correctly.	Student is missing important info and does not use terms correctly.