Making Guitars

This activity accompanies "The Master-Player," from *The Complete Poems of Paul Laurence Dunbar* by Paul Laurence Dunbar, record number 4987.

Activity Title: Making Guitars

Description: The students will learn about sound by experimenting with homemade guitars.

Subject: Science

Skill: Sound

Behavioral Objective:

- The student will investigate and explain that vibrating objects produces sound, and that pitch depends on the thickness of the string.

Materials:

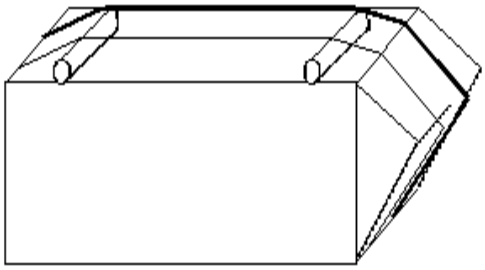
- "The Master-Player" poem, available in audio and print form at http://etc.usf.edu/lit2go/
- 5 milk cartons (or half and half cartons) that a rubber band can fit around.
- 2 pencils per milk carton (10 pencils)
- 1 thick and 1 thin rubber band per milk carton (5 of each)
- Lab sheet (below)

Procedures:

Read the poem with the class, or have the students read it on their own. Discuss with the students how sound is produced, like how the Master-Player makes the harp work. Next, have the students experiment with homemade guitars, (directions below).

To make the guitar:

1. Stretch one thick and one thin rubber band over the milk carton, keeping the rubber bands separate
2. Place 2 pencils under the rubber bands near the end of the carton.



Picture from: http://www.proteacher.com/cgi-bin/outsidesite.cgi?id=4125&external=http://www.galaxy.net/~k12/sound/&original=http://www.proteacher.com/110015.shtml&title=The%20Science%20of%20Sound

Directions for students:

1. Split the students into 5 groups and hand each group a guitar.
2. Have the students predict what the two rubber bands will sound like (are they going to sound the same, different, how? etc.)
3. Have the students write their prediction on the lab sheet (below).
4. Once the students have finished rest of the lab sheet, debrief what is happening with the two different strings and why the Master-Player was not able to play the harp when the strings were loose.

Name_____ Date_____

Guitar Lab

Prediction: _____

_____

	Description of the sound of the string.
Thick String	
Thin String	

Was your prediction correct: _____

What was really happening: _____

_____

_____