

Students build “Green” Pipe Organ  
NewsDepth, January 7, 2009  
Classroom Activities

**Overview:**

It was a lesson in physics, but it turned into something more than that. It was a lesson in ingenuity. Some students at Pasadena Memorial High School have helped bring an old-fashioned instrument into the 21<sup>st</sup> century by building a pipe organ entirely out of recycled materials. Students in today’s activities will be challenged to design their own musical instrument out of recyclable materials.

**Grade Level: Grade 3-4**

**Subject Matter: Science**

**Standards:**

Students will describe and use a simple design process used to solve a problem (the environment).



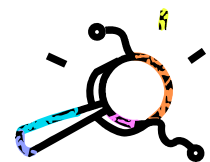
**Classroom Activities:**

**1. Activity #1 “Tune in to Music from Recyclables” (10-15 minutes)**

- Discussion about the pipe organ: Students at Pasadena Memorial High School in Texas have built what is being termed a “green pipe organ.” Watch clip again.
  - Why is it being called that? What do you think is the most unique or amazing feature of this pipe organ?
  - Eventually there will be pipes added along the auditorium walls. Students are considering recycled glass Coke bottles and bamboo among other possible materials. What else could you suggest to be used to make the pipes?
  - [http://abclocal.go.com/ktrk/story?section=resources/lifestyle\\_community/outdoors&id=6558955](http://abclocal.go.com/ktrk/story?section=resources/lifestyle_community/outdoors&id=6558955) source for picture
- Watch <http://www.japanprobe.com/?p=3711> to see other, simpler and less sophisticated instruments made from recyclable materials. This was a contest in which contestants showed off musical instruments that they created by recycling household items. (This is a Japanese based website, so you probably won’t be able to understand what they are saying.)

**2. Activity #2 “Design Your Own Musical Trash” (extended activity)**

- What are the 3 R’s? No, not readin, writin’ and rithmetic! They are reuse, reduce, and recycle. How many of you recycle at your houses? Explain to us what you do to make your house “greener.”
- Have you ever made an instrument from something you had at home that was most likely going to end up in the trash can? Tell us about it.



- Have a “From Trash to Musical Treasure” contest with your students. This is an interactive assignment that students will do at home with their parents, grandparents, siblings, or partners. This can also be done as a classroom activity. Establish guidelines and assessment criteria for the contest. On a given day, have students bring in their finished project and demonstrate for the class. You could also have the students form little bands of 3 or 4 of them and prepare a song to play for the class.  
[http://reclaimthefuture.org.uk/activities/5\\_livesimply\\_activities/](http://reclaimthefuture.org.uk/activities/5_livesimply_activities/) is a website you can use for guidelines. Click on Reduce, Reuse, Recycle.
- If this is done as a classroom activity, handout a list of possible things that can be use to create instruments. Ask each student to do a little scavenger hunt at home with parent supervision and have them each bring in 3-5 items from their list or let them use their imagination to come up with their own recyclables.
- Resources you can provide:
  - [http://familyfun.go.com/arts-and-crafts/specialfeature/musical\\_instruments/](http://familyfun.go.com/arts-and-crafts/specialfeature/musical_instruments/) Family fun, a Disney site
  - <http://www.placeofourown.org/activity.php?id=271> A Place of Our Own
  - <http://www.geocities.com/painless47/waste/index.htm> Geocities site: Make recycled musical instruments
  - <http://www.artistshelpingchildren.org/musicalinstrumentsartscraftstideashandmadekids.html> Artists helping Children: 9 easy to make musical instruments.
  - <http://www.recyclethis.co.uk/20080923/recycling-things-to-make-music> Recycling things to make music
  - <http://www.loydartists.com/images/resources/studyguide.pdf> Music from anything! Teaching guide

Handout #1

## Musical Instrument Recyclable List



- sequins
- buttons
- ribbon
- masking tape
- beads
- glitter
- sand
- cellophane
- construction paper
- magazines
- photos
- crayons
- markers
- colored pencils
- paint
- empty oatmeal box with cover
- spools
- construction paper
- crayons
- ruler or stick
- washers
- nail polish
- string
- mixing spoon
- paper towel roll
- waxed paper
- rubber band
- pot covers
- ribbon
- pocket comb
- tissue paper
- paper towel or bathroom tissue rolls
- jingle bells
- string or yarn
- bottle caps
- dowels