

# Making an Instrument

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Hearing Sculptures online curricula

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Many of the materials for these instruments were found as items that were going to be thrown away or recycled. We also found a large quantity of supplies at recycle home stores. We tried to only use recycled materials but found that we needed to buy some supplies so we had enough or because we couldn't find what we needed. We spent under \$500 and with more time to search out supplies we may have not spent that much.

## Shakers

Objectives: to create a percussion instrument that would offer different sounds.

Skills practice: listening, measuring, sawing, collaboration.

Level: all elementary levels worked on these  
Early Elementary could do with pre cut tubes or support with sawing)

Materials:

PVC piping

Balloons, large sturdy

Colored masking tape

Variety of shaking materials (to make different sounds):

beans

corn kernels

rice

beads

etc.

Tools: Just some basic tools were used, hack saws, handsaws, and hammers.

Students worked in partners to build the shaker. They measured an appropriate length of tubing, something that could easily be held in their hand. We had vices set up at a table that held the tubing and students used this to stabilize the area to be cut. They took turns sawing. Once they had their cut tube, they then picked two balloons to be used to cover the ends of the tube.

This was the time students could experiment with the sound. Students used different materials to create a sound they liked. Some students used one kind of material and some mixed materials for the shaker. Once they finished sound testing they used the colored tape to secure the balloons on the end and to decorate the tube with patterns and designs.



## “J” Pipes

Objective: to create a sculptural percussion instrument

Skills Practiced: Measuring, sawing, listening, identification of pitch, collaboration

Level: Elementary

Materials: 20' Corrugated drain pipe (depends on how many you are making), dowels five feet in length or something similar (one for each pipe), cording or nylon rope, packing tape, mallets, ribbons, and colored masking tape(optional)

Tools: Saws, vises, rulers

### Procedure

Students worked in groups of three or four to create the “J” pipes. There were two separate stations set up. In one area students used vices and saws to cut the corrugated drain pipe into about 4 to 5 feet lengths and to cut the dowels or sticks to length for each pipe. In another area of the room, they taped the pipe to the dowel in about three areas and then tied up the curved end to the stiffened pipe. Of course students should test the pipe sound with a mallet before the tape and tying is finished. Some students added ribbon streamers with colored masking tape around the top of the pipe for decoration.



## Dingers

Objectives: To create and play a mallet instrument similar in sound to a glockenspiel

Skills Practiced: Measuring, division, hammering, listening, identification of pitch, mallet technique, collaboration

Level: Upper Elementary and older. Older students could also take part in the cutting of the pipe. This process was too difficult and dangerous for elementary students

Materials: Plywood, small nails, rubber bands, metal pipe (copper was the most resonant, but aluminum and steel also worked)

Tools: Saws, vises, hammers

### Procedure

Students worked in pairs to create the dingers. There were two separate stations set up. In the art room, students used vices and saws to cut plywood bases for their instruments. In the music room, they measured their pipe and attempted to mark points  $\frac{2}{7}$  of the way over from the ends. After pounding nails corresponding to these points, students mounted the pipe by feeding it through tightly-strung rubber bands. They then found a matching pitch on the piano keyboard, identified the note, and burned the letter name into the plywood base.

