

Chapter 6

Making Musical Instruments

Types of Musical Instruments

Humans have made musical instruments since the very earliest times. A bone flute was found in Europe that is 40 thousand years old. Click the link below to see the flute and hear it played.

<https://www.youtube.com/watch?v=InV2vogeiec>

Humans have always been interested in sound. Children are no exception. Children are also interested in experimenting, tinkering, and exploring. I remember a little 3 year old boy coming to school holding a paper bag. I wondered what was in the bag. His Mother told me that the boy had been watching his father change a tire on the car when his father dropped a lug nut on the cement. The 3 year old was interested in the sound and picked up the nut and dropped it again listening to the sound. That led the boy to go around looking for things to drop so he could listen to the resulting sound. The bag he was now holding held the items the boy found that made the sounds he liked best. So, I expressed interest and the boy opened his bag and took out each item and dropped it for me on our linoleum floor so I could hear the sound it made. What a wonderful discovery. How lucky the boy was that his mother noticed, supported, and appreciated his interest.

So, we need to give children an opportunity to listen to sounds and to experiment with things to make sounds.

Classroom Example. Here is a YouTube video of an excellent teacher working with a group of students exploring the making of reed instruments using drinking straws. This video is a “how to” video that gives a great sense of the value and joy of the exploratory process. This is what having kids make musical instruments is all about.

<https://www.youtube.com/watch?v=Bka3QGufW2Y>

Instruments that can be used to make sounds have been classified into the following categories:

idiophones

an instrument the whole of which vibrates to produce a sound when struck, shaken, or scraped, such as a bell, gong, or rattle.

Examples of idiophones that children can make.

rattles

wood-block tambourine

sand blocks

scrapper

shingle-box frames

chimes

membranophones

any musical instrument which produces sound primarily by way of a vibrating stretched membrane.

Examples of membranophones that children can make:

coffee can bongos

balloon covered jars of different sizes and filled with different amounts of water. (interesting to see sound waves hit the water)

balloon covered container like an oatmeal box with and without an opposite end

experiments with different materials to serve as membrane

chordophones

a musical instrument that makes sound by way of a vibrating string or strings stretched between two points.

Examples of chordophones children can make:

dulcimer fret board that can be placed on different surfaces

bucket bass

simple psaltry

zither

aerophones

any musical instrument that produces sound primarily by causing a body of air to vibrate without the use of strings or membranes.

Examples of aerophones children can make:

reeds - grass whistle, straw reed

horns - whirling hose, conch shell, hose horn

flutes - pop bottle flutes, pan pipe, slide whistle, garden hose recorder.

Instructions for Some Things to Make

Membranophones

I like to begin with young children making membranophones (drums). They are going to make many drums to explore as many aspects as practical.

First, collect a variety of containers that are different sizes, shapes, and made of different materials. These can be jars, bottles, oatmeal boxes, coffee cans, etc. You want children to be able to explore the effect of different variables such as a change in size, shape, material, and whether or not more than one end is open.

Next, collect a variety of materials that can be used as membranes along with materials that can be used to hold them onto containers. Have lots of different size balloons, some different fabrics, and anything else that might work as a membrane (whether or not you think they will work). I've had students consider paper towels, cellophane, wax paper, and aluminum foil.) Anything that can stretch is always good to try.

It is nice to start off making bongos of different sizes stretching balloons across the top. What happens as you change the diameter? What happens as you change the depth of the container? What happens if all

sides are closed other than the membrane end? What if the opposite end is open? How can you make a deeper low sound? How can you make a higher sound? Does it make a difference if you use a tin container vs. a cardboard container vs. a glass container? Does the thickness of the sides make a difference?

If you use glass containers of the same size and fill each one with a different amount of water does it effect the sound? Do any children notice that when you tap the membrane that covers a glass partially filled with water that you can see ripples created in the water?

You can see that this is more than a music lesson. It is a lesson in how to learn. It is a lesson in science. It is a lesson in getting ideas and trying them out. It is a lesson in the joy of activity and discovery. It is a lesson in the joy of sharing and trying things with others. And, of course, it is a lesson in what makes sounds and what goes into making a musical instrument. It can lead to an appreciation of what goes into making a really fine musical instrument that has a very high quality of sound. Hans Zimmer, a famous composer of music for movies, says that what he does is play with sound.

Be sure to allow the children time to explore, experiment and pursue ideas—not only in a given day, but over days and weeks.

Coffee Can Drums

<http://kidsactivitiesblog.com/5491/big-thoughts-creative-kids>

Idiophones

Next, I like to move on to idiophones (rattles, shakers, wood blocks)
There are a lot of things to try.

Fancy Egg Shakers -

<http://www.mamasmiles.com/fancy-shaker-eggs-version-two/>

Post-Card Shaker, Pocket Shaker, Pot Bell, Plate Maracas, Jingle Shake,
Rain Stick

<http://playsinglaugh.com/archives/1066>

Aerophones

Woodwind Instruments

<http://howtoadult.com/children-make-homemade-woodwind-instrument-7219159.html>

Reed

Straws as reed instruments

<https://www.youtube.com/watch?v=Bka3QGufW2Y>

Horns

French Horn

<https://www.savvyhomemade.com/homemade-french-horn-for-kids/>

Didgeridoo

<http://www.two-daloo.com/giant-diy-didgeridoo/>

Flutes

Drinking straw pan pipes

<http://krokotak.com/2013/04/singing-straws/>

Chordophones

<https://diy.org/skills/instrumentmaker/challenges/8/make-a-string-instrument>

Websites below show a variety of musical instruments that students will enjoy making.

<https://www.pinterest.com/pin/424042121137012511/>

<http://www.dariamusic.com/crafts.php>

<http://www.howweelearn.com/spectacular-homemade-musical-instruments/>

<https://www.pinterest.com/maestroclassics/homemade-musical-instruments/>

<https://kinderart.com/art-lessons/music/easy-make-musical-instruments/>

<http://www.redtedart.com/musical-instrument-crafts-for-kids/>

<http://meaningfulmama.com/20-diy-musical-instruments.html>

<http://buggyandbuddy.com/10-homemade-musical-instruments-kids/>

<http://www.artistshelpingchildren.org/musicalinstrumentsartscraftstideashandmadekids.html>

<http://www.howcast.com/guides/841-how-to-make-musical-instruments-for-kids/>

https://www.youtube.com/watch?v=AkQDU-o_V2k

<https://www.atlantasympphony.org/aso/asoassets/downloadcenter/Symphony%20Street%20Activity%20Sheets.pdf>

Next, is information to help in building a dulcimer from a cardboard dulcimer kit.

That is followed by two books from the Elementary Science Study project which are now in the public domain.

Teacher's Guide For Whistles and Strings

Musical Instrument Recipe Book

These two books are an invaluable guide to having children build musical instruments. These activities are well researched and well developed. They also provide a sense of the process for engaging students.

