

RAFT IDEAS

Topics: Sound, Waves,
Musical Instruments

Materials List

- ✓ Triangular, gray handle
- ✓ 4 long, metal pieces
- ✓ String (thin)

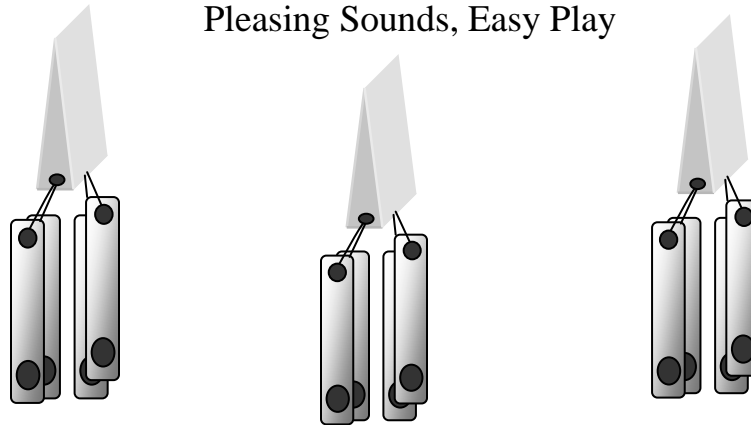
This activity can be used to teach:

- Explore and experience musical ideas and concepts (National Music Standards: Creating, Grades Pre K-8)
- Sound (Next Generation Science Standards: Grade 1, Physical Science 4-, 4-4)
- Energy and sound (Next Generation Science Standards: Grade 4, Physical Science 3-2, 3-4)



Hand Chimes

Pleasing Sounds, Easy Play



Investigate sound, music, and instruments or just enjoy the pleasing sounds of these simple hand chimes.

Assembly

Use string lengths to secure the 4 metal pieces to the triangular handle. To minimize the number of required knots, loop the string through a hole in the handle and then tie a metal piece on each end. Repeat with the other side of the handle.

To Do and Notice

1. Hold the chimes by the triangular, gray handle.
2. Shake the chimes to hear bell-like tones.

To investigate music:

- Compare the chimes sound to other instruments. How are they alike? How are they different?
- Use the chimes to practice rhythm.

To investigate sound:

- Modify a part of the instrument. Use thicker or longer string. Add more metal pieces. Does the sound change?

The Content Behind the Activity

Vibrating matter creates sound. When students shake the chimes, the suspended metal pieces will hit one another creating vibrations. The metal pieces vibrate the surrounding air molecules, creating pressure waves. These waves travel to our ears and are then transmitted to our brains as electrical signals we perceive as sounds.

Scholars classify musical instruments into 4 main categories by which part of the instrument vibrates to make the sounds: chordophones = vibrating strings; membranophones = vibrating membranes; aerophones = vibrating columns of air; and idiophones = part of the item itself vibrates. Symbols, triangles, xylophones, bells, and these chimes fall into the idiophone category.

Taking it Further

Investigate sound and instruments with some other RAFT Idea sheets, including *Sound Shakers*, *Straw Oboes*, *Glove-a-Phone*, and *Pan Pipes*.

Web Resources - (Visit www.raft.net/raft-idea?isid=98 for more resources!)