



Lesson: Constructing Wind Chimes

OVERVIEW

Two Essential Questions in the FACETS model focus on what the music sounds like, and what techniques the composer uses to achieve that sound in order to help us know what is being expressed. In *Eye of the Hawk*, composer Susan Botti includes a detail about the sound and expressive qualities of the music by recommending that the wind chimes have a sound color that comes from “found sound” instruments made with re-purposed metal object. In this lesson plan, flute players and percussionists will construct and play their own “found sound” wind chimes. A plan for engineering wind chimes, suggestions for metal objects to use, construction techniques, and a short video made by Botti will provide the resources needed for this project.

LEARNING GOAL

Students will make a set of wind chimes using a suggested process and the materials they collect and assess the sound quality of their instruments by gathering feedback from other students. The wind chimes will be used in the performances of *Eye of the Hawk*.

RESOURCES & MATERIALS

- [Student copies of the process directions](#)
- Collected materials listed in the lesson plan
- [Recording of *Eye of the Hawk*](#) (click link to download or email BandQuest@composersforum.org for a free Catalog CD)
- [YouTube video of Botti and a student demonstrating their constructed wind chimes](#)

PROCESS

1. Decide ahead of time if this is a project for only the percussionists, the flutes and percussion, and/or other band members. In Botti’s score, percussionists and flutes are the designated wind chime players. Consider making this an independent activity complete on their own time for those students.
2. Listen to the opening of moments of *Eye of the Hawk*, paying special attention to the sound of wind chimes. Tell students that this sound is what they will provide by making their own wind chimes.
3. Provide the process direction form, a time frame for the project, and a final date for completion. It should not be a long term assignment since students will need the finished instruments for rehearsing the piece.
4. On the day the chimes are completed and used in the rehearsal, provide time for the chime-makers to demonstrate their instruments to the rest of the band. Band member can respond to these questions:

Warm Feedback: What’s working well? (Timbre? Construction? Volume? Playing technique?)

Cool Feedback: What could the instrument builders do to improve? (See above list)

Any Suggestions: (Consider additional metal parts, construction suggestions, playing suggestions, etc.) for a clear, ringing tone.

5. Welcome the new instruments into the band as they play *Eye of the Hawk*.

ASSESSMENT

Peers will assess the chimes created by students as they use the simple Warm/Cool protocol to provide feedback on the sound and construction of the instruments.

EXTENSIONS

- Use these new chimes in other pieces that band is rehearsing.
- Challenge students to create other instruments outside of class time. Suggest they do a web search for ideas. Use this independent learning project as an extra credit opportunity. Invite peer assessment of the quality of sound and construction of handmade instruments using the above criteria.
- Challenge students to compose short works that will use their handmade instruments.

MAKING "FOUND SOUND" WIND CHIMES FOR *EYE OF THE HAWK*

Materials you will need:

- A solid object as the base for hanging the small metal pieces. See suggestions below or find your own object. A circular object will allow you to space the hanging objects so they will more easily come in contact with each other, but even a sturdy stick will work.
- A variety of metal items to hang from the base. Remember that dense, heavy metal objects will make a lower sound and small, thinner objects a higher sound.
- Fish line or sturdy kite string for hanging the objects from the base.



1. Collect your materials. If your base needs holes, use a hammer and nail to punch holes in plastic or thin metal objects.
2. Cut fishing line or string in various lengths (6" to 14") now so you'll be ready to assemble them.
3. Tie one end of the line/string to the object and the other to the base. Keep adding objects. When your base is partially full, lift it up and push against the hanging objects to assess the sound they are making. Continue hanging objects on the base until you have the sound you like.
4. If some objects do not vibrate with a pleasing tone, remove them and substitute others.
5. Make sure each hanging object is securely tied on.
6. Add a way to hang them so that you can hold on to your chimes or hang them from a music stand. Four pieces of strong string or wire attached to the base and pulled up over the base and tied together will work well. Add a metal ring to the wire if you wish.

CRITERIA CHECK LIST FOR A SUCCESSFUL INSTRUMENT:

- ☐ Is the tone/timbre/sound pleasing? (And what makes it a pleasing sound for *Eye of the Hawk*?)
- ☐ Does it have a ringing, magical quality?
- ☐ Can it be easily used – either by holding with one hand and jingling with the other, or by hanging and jingling with one hand?
- ☐ Is it well made – does it hold together?
- ☐ Is it an instrument you like playing?

Suggested objects for the base:

Larger objects:

- Embroidery hoop
- Gas stove burner grid (see Botti's video)
- Metal colander (already has holes)
- Frisbee with holes punched in rim
- Large sieve
- Sturdy branch or cross-sticks, lashed tightly in the middle to make an X
- Strong wooden or plastic hanger

Smaller objects:

- Mason jar screw on lid
- Bangle bracelet
- Biscuit cutter with a handle

Metal objects to hang from the base:

- Old metal spoons, forks, dinner knives
- Bottle openers & other kitchen utensils
- Keys
- Nuts, bolts, thumb nails, eye bolts, screws, washers
- Metal chain
- Small metal toys
- small bells
- Broken metal necklaces or bracelets
- Bike gears and chains
- Wrenches
- Springs
- Metal spring clips
- Notebook rings – D ring or round

