



Hot Air: The Story of Brass Instruments

Chestnut Brass Company

Grades 4-7

Wednesday, March 16, 2005 • 11 a.m.-12 p.m. ET

When viewing *Chestnut Brass Company's Hot Air* and participating in this guide's suggested activities, the following National Standards for Music will be addressed: 2, 6, 7, 8 and 9.

Students Will See and Hear...

Chestnut Brass Company presents a musical history and technology tour as a way to explore the development of brass instruments. The five members of the group perform on period instruments from the 16th to 19th centuries. Students hear music from the Renaissance and the Civil War performed on instruments that were played at that time. Chestnut Brass Company musicians perform solos on each instrument, to help students understand "What is a brass instrument" and "How do brass instruments work?" At the end, the quintet plays on modern brass instruments demonstrating how the instruments have changed over the centuries.

Curriculum Connections:

Hot Air: The Story of Brass Instruments program correlates with the following curricula: Music, Social Studies/History, Science and Technology, Math

Educational Objectives

- To identify each brass instrument's characteristic sound; to recognize families of similar instruments; to understand pitch (high and low notes), tempo (speed), and dynamics (loudness); to explore changing musical styles over a 500-year period
- To compare and contrast music composed in the European Renaissance, Baroque era, and U.S. Civil War period along with contemporary music
- To understand the physics of brass instruments, how each produces sound; to chart the evolution of musical performance practices resulting from technological innovation in musical instrument design and construction
- To understand pitch relationships in musical scales

Program Notes

Chestnut Brass Company begins its *Hot Air* program with a loud bang to command the audience's attention. After this display of raw musical power, generated without electronic amplification, Chestnut Brass demonstrates the techniques involved in playing a brass instrument. They begin by explaining that sound is created by forcing air through buzzing lips into a metal mouthpiece attached to a long coiled tube. Pitch can be altered by lengthening or shortening the tube's length with

valves or slides. To demonstrate the 5-octave pitch range achievable by the modern family of brass instruments, the ensemble plays a tag-team major scale from a very low tonic pitch (F natural) played by the tuba, to the same tonic pitch five octaves higher played by a piccolo trumpet.

Next, the quintet demonstrates the evolution of brass instruments and their 500-year history in Europe and America. Each family of instruments is introduced in its historical context, from the story of its inven-

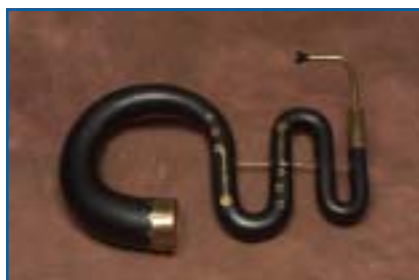
tion to the performance of the period music composed for it.

The first example is the natural trumpet, played between 1500 and 1840. It is simply a single coiled tube 6 to 10 feet in length with no finger holes or valves. To create various pitches a player does so with nothing but changes in lip tension and air pressure, a performance practice known as "overblowing."

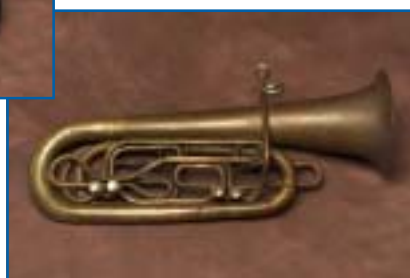
Cornettos and sackbuts, played mostly in Renaissance music of the

16th and 17th centuries, added finger holes and a slide, respectively, to the tube, to make the playing of precise pitches easier. A further evolutionary step was the keyed bugle, patented in England in 1811 and later played in the United States Military Band at West Point, New York. Unlike a modern trumpet with its valves, this earlier instrument has keys similar to those used in clarinets and saxophones.

The saxhorn family of instruments, invented in 1845 by Belgian Adolphe Sax (who also invented the saxophone), included seven sizes from the very large contrabass to the very small soprano. During the Civil War era, saxhorns were used not only for military music but also for recreational dancing because they were so loud that large groups of energetic dancers could hear the beat clearly. The program concludes by coming full circle to the modern brass quintet in an arrangement of an American standard song from the 1920–1940s.



Serpent



E flat Tuba



E flat soprano over-the-shoulder Saxhorn



Cornopean

Instructional Activities

Characters in Brass

1. A “chestnut” is an expression for a song that is an all-time favorite. Chestnut Brass Company was named not for that term, but for the street corner in Philadelphia where the group first performed. Select a song from today’s music and write a paragraph explaining why it should deserve “chestnut” status.
2. Write down things you know about each instrument. Does it play high notes or low notes? Does it sound bright and loud or warm and soft? Does it usually play quickly or slowly? How big is it?

About the Artists

Chestnut Brass Company began as a street band in 1977 playing for passers-by in Philadelphia. Since then, they have toured the world with their own museum of modern and historical brass instruments, playing concert halls in Europe, the Caribbean, and the Americas. They perform a wide range of music on an equally wide range of brass instruments from Civil War-era “back-

firing” horns to a rare complete set of keyed bugles, a consort of sackbuts, and a startlingly sinuous Renaissance serpent. In addition to performing music from the distant past, Chestnut Brass believes in supporting the work of contemporary composers and has commissioned many new works composed especially for them.

Internet Resources

For more information, visit:

music.vt.edu/musicdictionary/textn/Naturaltrumpet.html

cornetto.org.uk/cornetto.html

s-hamilton.k12.ia.us/antiqua/sacbut.htm

tapsbugler.com/HistoryoftheBugle/HistoryoftheBugle4.html

mi5th.org/Saxhorn.htm

memory.loc.gov/ammem/cwmhtml/cwmhome.html

artsedge.kennedy-center.org/content/2095/

Other resources related to *Hot Air: The Story of Brass Instruments* can be found on page 20.

For additional resources, visit kennedy-center.org/pwttv