





MUSIC IS SCIENCE




Ashurst Elementary School
4320 Dulaney Road
Quantico, VA 22134



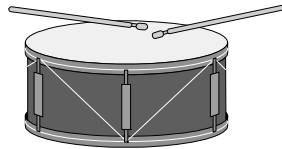
DoDEA CONTENT STANDARDS

The DoDEA Curriculum Content Standards note that all students in kindergarten through third grades make connections between music and other disciplines in the curriculum. The content material covered in this “vibrations lesson” clearly supports and enriches the science curriculum taught in the school.

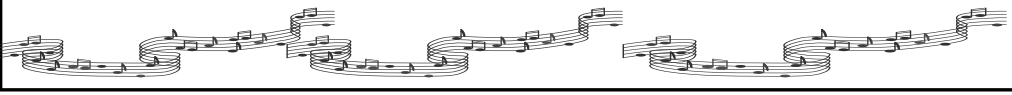


ASHURST STUDENTS TO EXPERIMENT WITH VIBRATIONS TO SEE HOW MUSIC AND SCIENCE ARE RELATED

The students in all of the music classes will be conducting experiments to see that all music is made from vibrations. The students will be using simple classroom percussion instruments such as drums and xylophones to see how sound is created by vibrations. The students will have the opportunity to use these instruments to feel the vibrations. Since it is difficult to “see” vibrations, we shall be placing objects on these instruments that will react to the sounds when the instruments are played. The students will be making observations and drawing conclusions about how sound is produced.



This use of the scientific method for learning is a fine opportunity for the students to see the inter-relationship between the various curricular areas taught at Ashurst Elementary School. The goal of the lessons is to develop an awareness and understanding of the sources and properties of sound.



An additional lesson in the properties of music, science, and sound will have the students becoming detectives. As an in-class project, we’ll be taking an extensive look at how the strings in a piano vibrate to create sound. This will not be a “theoretical” lesson. We’ll actually be taking the front off the music room piano and opening the piano to make the strings and soundboard visible to the students. Students will have the opportunity to play some of the keys on the piano and see how felt hammers hit the strings to produce vibrations.

Students will be asked to make predictions and draw conclusions regarding the size of the piano string and what sort of sound it will make when it is struck by a hammer when a key is pressed. They will also compare the sound from the same string when a hammer strikes it with varying amounts of force. (For all of you parents who were told to “...never bang on the piano,” you’ll be sad to know that there is a finite amount of force that a hammer can use to hit a string.)

CDR
Music Specialist
January 20, 2010

