



**Hey! What's that Sound?** takes students on an interactive discovery of sound and science through world percussion performance and demonstration. Using various instrument timbres and environmental resources, this assembly program demonstrates three characteristics of a sound wave: wavelength, frequency, and amplitude.

Students learn how sound is produced and how it is transmitted and received. Concepts & terms in this fun-filled assembly include vibration, pitch, volume, friction, wavelength, frequency, amplitude and chain reaction.

### Key Concepts of Hey! What's that Sound?

- Students will come away with a greater awareness and appreciation of their environment.
- Students will be able to express ways in which environmental resources are used to create musical instruments.
- Students will be able to articulate how sound is produced and the difference between pitch/frequency and volume/amplitude.
- Students will be encouraged to share their learning post-assembly within a group setting.
- Students will be inspired to create their own music and/or instrument from resources found in their own environment.

### Key Vocabulary

- rhythm** - the regular pattern of beats; the aspect of music comprising all the elements (accent, meter, and tempo) that relate to a forward movement
- pitch** - how high or low a sound is; determined by the frequency of the vibration
- sound wave** - a moving pattern of high and low pressure or vibrations
- amplitude** - the measurement of a sound's volume
- found sound** - instruments created by ordinary objects: keys, desk, book, spoons, etc.
- timbre** - the quality of sound produced by an instrument, affected by an instrument's shape, resources and techniques used to create sound

### Georgia Performance Standards

S1P1. c&d - Students will investigate light & sound:  
c. Investigate how vibrations produce sound.  
d. Differentiate between various sounds in terms of (pitch) high or low and (volume) loud or soft.

S4P2 a&b - Students will demonstrate how sound is produced by vibrating objects and how sound can be varied by changing the rate of vibration.  
a. Investigate how sound is produced.  
b. Recognize the conditions that cause pitch to vary.

M1GM.6 a&b - Listening to, analyzing, and describing music:  
a. Distinguish between contrasts (pitch, dynamics, tempo, timbre) in various pieces of music.  
b. Describe music using appropriate vocabulary (e.g., high, low, loud, quiet, fast and slow).

M4GM.8 - Understanding relationships between music, the other arts, and disciplines outside the arts.



### Pre-Performance Conversation

- What is percussion?
- How are drums made?
- What are some ways you could learn to play the drum?
- What are some different actions that could be used to produce sound?
- What does energy have to do with producing sound?
- What is the difference between noise and music?
- Can you make 3 different noises with your voice? Can you use those noises to make a rhythm?



### Post-Performance Reflection

- What does energy have to do with producing sound?
- How many different instruments did you see on stage today? What were your favorites?
- Describe some of the instruments used in the show. What made each sound unique?
- What are the different actions that were used to produce sound?
- What are some factors determine a change in pitch from one instrument to another?
- If you were to hit a drum using little energy and then hit it again with a lot of energy,

will you have changed the pitch of the drum or the volume?



### Extend the Learning

- Listen to 3 different types of music. What sounds/timbres do you hear? What instruments are creating the music? Which instrument has the highest/lowest pitch?
- Draw a picture of your own drum. What natural resources is it made of? How will that affect the sound?
- Journal about the performance experience.
- Create a group rhythm piece that demonstrates pitch/frequency and volume/amplitude.
- Draw a picture of a sound wave that demonstrates high frequency. Now draw picture beside it that best matches that frequency. Do the same for low frequency!

