

SCIENCE PARENT GUIDE – UNIT 3



IMPORTANT CONCEPTS YOUR STUDENT SHOULD KNOW AND ACTIVITIES TO DO AT HOME

Sound

Description

First grade Georgia Standards of Excellence for Science engage students in constructing meaningful models that allow them to gain understanding of the natural world. In this unit students will investigate what makes sound and how sound can be used. Students will determine that sound is produced from vibrations. Students will recognize that sounds have different pitches and volumes. Students will identify sounds with the appropriate emergency type (match sirens with appropriate emergency vehicle). Students are asked to plan and carry out simple investigations to understand sources sound observed in the world around them and make predictions based on these investigations.

KEY WORDS TO KNOW

Sound- a kind of energy that you hear

Vibration- a movement back and forth

Emergency Alert – A sound which signals dangerous conditions.

Loud – Not Soft or Silent; Easily heard.

Soft (Sound) – very quiet, not easily heard

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Recommended Children’s Literature

Sending Messages with Light and Sound. By Jennifer Boothroyd. 2014
 Sound and Light. By Jack Challoner. 2001
 Hands-On Science: Sound and Light. By Jack Challoner. 2001
 Sensing Light and Sound. By Jennifer Boothroyd. 2014
 Light and Sound. By Mike Goldsmith. 2007

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Important Concepts Addressed in this Unit	Sample Problems	How You Can Help Your Student
<p>Georgia Standards of Excellence</p> <p>S1P1. Obtain, evaluate, and communicate information to investigate light and sound.</p> <p>d. Construct an explanation supported by evidence that vibrating materials can make sound and that sound can make materials vibrate.</p> <p>e. Design a signal that can serve as an emergency alert using light and/or sound to communicate over a distance.</p> <p>Science and Engineering Practices</p> <ul style="list-style-type: none"> Obtain, evaluate and communicate information. 	<p>1. Students are designing a device that uses sound to warn people in a park when there is a forest fire. The park is very large. What is most important to think about when designing the device?</p> <p>The device must _____.</p> <p>(A) run on electricity (B) be kept inside (C) have many parts (D) be very loud</p> <p>2. A bell can make a sound because –</p> <p>(A) it is made of metal. (B) it is very heavy. (C) it is a solid. (D) it can vibrate.</p>	<p>Videos</p> <p>Study Jams - http://studyjams.scholastic.com/studyjams/jams/science/energy-light-sound/sound.htm</p> <p>Brainpop - https://www.brainpop.com/science/energy/sound/</p>

<ul style="list-style-type: none"> • Plan and carry out investigations • Ask questions • Design a solution <p>Crosscutting Concepts</p> <ul style="list-style-type: none"> • Cause and Effect <p>Core Idea</p> <ul style="list-style-type: none"> • Light behavior 		
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Georgia Standards of Excellence for Science

Students are expected to perform the practices while learning the content and understanding the crosscutting concepts.

Science and Engineering Practices

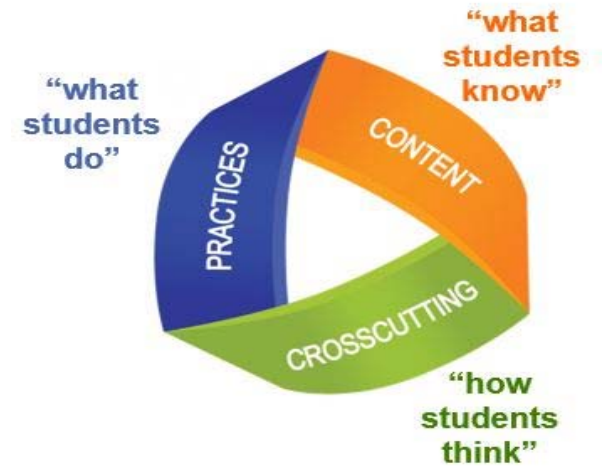
Students can use their understanding to investigate the natural world through the practices of science inquiry, or solve meaningful problems through the practices of engineering design.

Crosscutting Concepts

Provide students with connections and intellectual tools that are related across the differing areas of disciplinary content and can enrich their application of practices and their understanding of core ideas

Core Ideas

Core ideas cover the four domains: physical sciences, earth and space sciences, life science, and engineering and technology.



Quoted text from Peter A'Hearn