

CIC Lesson Plan

Lesson Name: Observing Sound
Developed By: Ashley Wijeyeratnam
For Grade: 2
Dates Available: Wednesdays, Thursdays & Fridays after 10:00 a.m.
Before December 08, 2005, & after January 25, 2006

Related CA Science Standards & Vocabulary Specific standards and new vocabulary related to lesson

CA Science Standard(s):

Sound is vibration, measured by volume and pitch

Vocabulary/Definitions:

Volume: the loudness of sound (A.K.A. Amplitude)
Pitch: the intensity of sound (A.K.A. Frequency)

Abstract of lesson:

- Personal introduction
- Students list 5 senses
- Pictures of applications of sound & related principles are shown with students making the link between the pictures and Sound
- Students describe sound and converge on the two measurable characteristics of sound, volume & pitch
- Students converge on units of volume measurement (loud & soft)
- Students converge on units of pitch measurement (high & low)
- Students are given a small plastic hollow globe & rubber bands to wrap around it & make sounds by plucking the rubber bands
- Students classify rubber bands into categories (thick, medium, thin)
- Students fill attached form by making initial observations, predictions & observations to verify predictions
- Students observe variations that effect pitch (size, length & tension)
- Students observe variations that effect volume (energy)
- The theme of energy is further demonstrated by observing bouncing beans on a tin
- Students touch the speaker of a radio to feel vibration
- Students touch their own throat to feel vibration
- Students discuss personal experiences of vibration felt with sound
- The link between vibration & hearing is briefly stated
- Students see & listen to waveforms on a laptop computer that illustrate the difference between volume & pitch
- Question time

Summary and Closing Ideas:

- Sound is vibration
- Sound is described by volume & pitch
- Nature of vibrating object effects the sound it produces

Follow-On Activities

- Make a list of musical instruments and identify what part of it vibrates (E.g. Flute – Air)

Materials and Preparation in Classroom

required materials and classroom set-up for complete lesson.

Volunteer Brings:

- Small hollow plastic globes and rubber bands for individual experiments
- Pictures of sound applications
- Forms for recording observations
- 4 Tins & beans for students to experiment as groups
- Small Radio/CD player
- Laptop

Classroom Needs:

- Power outlet

Set-Up Requirements:

- None