Pre-Site Activity: A Cricket Chorus

Grade Level: First

Subject Area: Science and Music

Activity time: 30 minutes

Setting: Indoors

Skills: communicating, experimenting, comparing, analyzing, presenting, applying, connecting, music

Vocabulary:

• Exoskeleton: An external, supportive, armor like covering on an insect.

• Insect: A member of a class of arthropods with a well-defined head, thorax, and abdomen, and only three pairs of legs.

Objectives:

1) learn how insects make sounds with parts of their bodies other than their mouths, such as legs and wings
2) learn how the sounds insects make allow them to communicate with one another
3) learn how insects use their adaptations and communication techniques to attract mates

Materials:

• Insect calls from various internet sources (search "Insect Sounds")
• Rhythm sticks
• Hand drum
• Maracas

Background:

As with most species in the animal world, insects have methods of creating sounds to attract mates and as a defense mechanism to protect themselves from predators. Primarily, it is the males who make the loudest, if not the only sounds, for their species. Sounds are generated through scraping of wings, wing flaps against each other, rubbing of legs together (termed ***stridulation***), or popping of membranes through muscle contractions (termed ***crepitation*** or ***wing snapping)*** against the ground or other surfaces.

Procedure:

Prepare students for this activity by searching internet sites (see suggested Resources at the end of this page) for insect sounds. Play a variety of these sounds for students to hear. Ask the students to imitate some of these sounds using their voices or other parts of their body. Explain to students the differences in how people communicate and how insects communicate.

Using a variety of musical instruments suggested below, allow students to imitate insect sounds. For a challenge, help them write and perform their own "insect instrumental".

Insect	Instrument	Actual Sound
Crickets and some grasshoppers	Rhythm sticks with edges	Stridulation
Cicadas	Rhythm sticks	Vibrations of membranes called tymbals
Some beetles, some grasshoppers, cockroaches	Hand drum	Striking part of the body against a surface
Gnats, mosquitoes, hornets, wasps, and bees	Brushing tambourine head	Vibration of wings or other body parts

Resources:

Mankin, Richard, "Bug Bytes" USDA, 18 April 2007 http://www.ars.usda.gov/pandp/docs.htm?docid=10919 (3 December 2007)

DeMary, John "The Insect World" Discovery Education 2007 http://school.discoveryeducation.com/lessonplans/programs/insectworld/ (3 December 2007)