

Appendix 1: Example of Teaching in Schools and Parks - Botanical Garden Teaching Scheme

Botanical Garden Soundscape Lesson Plan Design

Course Title	Listen to the Botanical Garden	Duration	150mins	Designed by	Fan Chin-hui
Venue	<p>Indoor Classroom (open, with adjustable tables and chairs, computers for viewing and listening and for students to make presentations)</p> <p>Outdoor Open space (for machine manipulation and drawing) for outdoor study tour</p>			Subjects:	Natural sciences, social studies, arts and humanities, music, civics
				Applicable to	Third graders and above, junior high school students and people who have entered the workforce, with contents subject to due adjustment
Number of Participants	5-20	Equipment	Projector, speakers, colored pens, board, white paper with circular patterns, stickers, poster paper, sticky notes, tape recorder, headphones, black cloth		
Teaching Philosophy	Modern people live in a soundscape, but the increase in ambient noise has caused most people to turn their ears off and refuse to listen. At a century-old botanical garden, this program aims to open the ears of participants to re-perceive and observe the sounds of the environment, and through appropriate guidance and lesson plan design, help them build a sense of place towards the environment, and understand that they are not the center of the environment, and empathize with the needs of other creatures and respond to the environment in a more friendly manner.				
Teaching Objectives	<ol style="list-style-type: none"> 1. Affection: Promote the ability to focus on environmental listening and learn to listen quietly. Enhance the ability of the auditory senses to think and express emotions. Develop an attitude of respect and tolerance. 2. Knowledge: Learn about the auditory senses and how to protect their ears. Understand sound as a source of environmental information and as an indicator of conservation. 3. Skills: Know how to use a decibel meter to detect ambient sound pressure and also learn how to record and monitor ambient sound through a recorder. 				
Steps	<p>Indoor lecture: 40-60 minutes</p> <p>Theme: The course starts with an initial introduction through a PPT slide show to stimulate learning. The course is divided into several sections</p>				

1.Hearing the Silence and the Noise

Topic: Recognize that the sounds of nature are not the background music of the human world, gain an awareness of the environment, learn to listen to the sound map of the earth, and learn how modern scientists and aborigines listen to the environment.

Title: Sound Hunters

Objective: To raise participants' curiosity about sound and improve their concentration on environmental awareness.

Design: Blindfold the participant and invite 1-3 children to act as the preys and make a sound for the blindfolded participant to point out their exact location after a certain period of time.

2.The Awakening of Listening

Topic: Understand the ear, the knowledge of sound, including decibels and frequencies, and the history and mission of the soundscape. Learn about the impact and damage of environmental noise on humans and other living things, and further explain how environmental noise is changing modern life

Title: Left Ear and Right Ear

Objective: To improve participants' concentration and memory.

Design: Three students form a line, with the left and right ones starting to speak at the same time on the topic assigned by the teacher who should also give an audible interference. When time is up, ask the student in the middle to answer what he has just heard. Award the one who remembers the most.

3.Finding the Sounds of the Taipei Botanical Garden

Topic: Introduce the botanical garden and refresh memories through old photographs, so that participants will gain a deeper understanding of the changes in the landscape. Use maps from different eras to enhance participants' understanding of the changing environment, and ask questions about the possible causes of environmental change. This module is designed to prepare participants for the activities that follow.

Outdoor study tour: 40-60 minutes

1.Fixed-point activity

Topic: A warm-up before the study tour, where participants can try to open up their senses and learn to express different emotions through sounds.

Title: Eye and Ear Switching

Objective: To help participants feel the difference between hearing and seeing

Design: Begin by explaining the purpose of the activity, then guide the participants to see a fixed point in the distance, then plug their ears and count to 30 seconds silently, then close their eyes, lower their hands and listen for 30 seconds. Repeat this procedure several times, then discuss the differences with your classmates.

Title: Soundscape Painting

Objective: To create a connection between sound and emotion, to practice the interpretation of sound through different abstract expressions and to promote mutual understanding and respect

Design: Through a sheet of paper containing an oval shape on the surface with a cross in the middle, participants are asked to place themselves at the center and record the sounds around them for 10 minutes using abstract symbols and colors. At the end, the sheets of paper are put together and the group guesses the sounds drawn by each other, thus facilitating mutual understanding and appreciation

2. Study tour

Topic: Through body movement and guided activities and the use of tools to experience the environment, walk around the map on a pre-arranged route, testing mutual cooperation and learning to listen quietly to ourselves and the environment. Participants will each be given a study tour map, and sticky notes on which they are encouraged to record all the sounds they have heard along the way.

Title: Hearing Service Station

Objective: To help participants open their ears with a recorder and noise decibel meter

Design: Teach participants how to use microphones and noise decibel meters for observation and recording.

Title: Blindfolded Soundscape Walk

Objective: To enhance the participants' perception of the environment and to test the level of trust between them

Design: Groups of two people take turns covering themselves with black cloth and keep a distance between groups, moving slowly. Then record the sound you just heard on a sticky note.

	<p>Indoor discussion: 30-50 minutes</p> <p>Topic: Back in the classroom, work in groups to create a soundscape map and reflect and feedback in the presentation.</p> <p>Title: Soundscape Map</p> <p>Objective: To reintegrate the content recorded during the soundscape study tour to enhance impressions and to discuss environmental observations, such as noise conditions, analysis of environmental sound characteristics, etc., and enable participants to realize the importance of quiet in conservation by means of focused discussions</p> <p>Design: Divide the participants into groups for discussion and have them attach the sticky notes on the same poster and present their reports, and take part in discussion.</p> <p>(1)The purpose of anurban park, serving humans vs. serving creatures (2)Human senses vs. creature senses (3)Park management: Can karaoke machines be allowed? Is it okay to bring a radio to play along the way?</p>
<p>Assessment</p>	<p>Classroom observation Pre- and post- test assessment questionnaire</p>
<p>Suggestions</p>	<p>1. Prepare small gifts to enhance children's concentration and enthusiasm. 2. Preparation for rainy days is necessary.</p>