

# The 5 E's: A Model for Designing Lessons for Inquiry Planner<sup>1</sup>

## Logistics Information:

- a. Sense of Hearing Education Learning Cycle Example
- b. Iowa Core Essential Concepts  
Science (Inquiry):
  - 1. Asks questions about objects, organisms, and events in the environment
  - 2. Uses tools to gather data and extend the senses
  - 3. Use data to construct reasonable explanations
  - 4. Communicate investigations and explanationsSocial Studies (Geography):
  - 1. Understand the use of geographic tools to locate and analyze information about people, places, and environments.
  - 2. Understand how geographic processes and human actions modify the environment and how the environment affects humans.Social Studies (Political Science):
  - 1. Understand the basic concepts of government and democracy and that the US Constitution defines the rights and responsibilities of citizens.
- c. Characteristics of Effective Instruction are embedded within the Iowa Core Curriculum
- d. A synthesis of *Project Learning Tree*
- e. Developed April 17, 2010

**Background Information** (What do observers need to know about our learners, classroom and school?): Schools will vary

## Materials Required:

*Sounds Around* (*Project Learning Tree*, p. 26-30)

CD (Audio) of animal sounds

## Time Period:

2-3 45-minute class periods

## Name of the Unit: Sense of Hearing

### I. Plan of the Unit

Goals of the unit:

- a. Students will identify and name the source of sounds they hear in their classroom and outside the school building.
- b. Students will discuss problematic sounds in their community and how these sounds could be reduced.
- c. Students will identify and map animal sounds they hear on a CD (Audio).

How this unit related to the curriculum:

Previous Grade/Course	Current Grade/Course Next	Grade/Course
	K-2 (Life Science) – Students have been introduced to and will explore the sense of hearing.	3-5 (Life Science) – Students will continue to explore the sense of hearing as it relates to the parts and functions of the ear .

- d. Lesson Plan: Phases in a 5E Learning Cycle (in no particular order) are Engage, Explore, Explain, Elaborate, and Evaluate. There may be multiple experiences in each phase.

Phases of the lesson: learning activities and key questions (and time allocation)	Student activities/ anticipated student reactions or responses	Teacher’s response to student reactions/ Things to remember	Evidence of Student Understanding
<p><b>ENGAGE:</b> Students will sit in a dimly lit room while listening to a CD of animal sounds.</p> <p><b>EXPLORE:</b> Students will sit quietly and listen for sounds that they hear in the classroom for several minutes.</p> <p>Students will go out into the school yard and repeat the activity.</p> <p><b>ELABORATE:</b> Students will identify and reflect on problematic sounds (sounds that distract them or might cause problems in the community).</p>	<p>Students will have small group discussions and list the sounds they heard.</p> <p>Students will compare and contrast the indoor and outdoor sounds using a Venn diagram.</p> <p>After completing the outdoor listening activity, students will make a “sound map” that indicates the source and location of each sound.</p> <p>As a class, students will list and discuss these sounds.</p> <p>Students will come up with solutions to these problematic noises.</p>	<p>Teacher will ask open ended questions to guide the discussion.</p> <p>Teacher will record their responses.</p> <p>Teachers will structure the environment to promote silence.</p> <p>The teacher will ask clarifying questions to guide the discussion.</p> <p>Teacher will write the list and possible solutions.</p>	<p>Created list.</p> <p>Students will complete the Venn diagram and sound map.</p> <p>Student responses.</p>

<b>Phases of the lesson: learning activities and key questions (and time allocation)</b>	<b>Student activities/ anticipated student reactions or responses</b>	<b>Teacher’s response to student reactions/ Things to remember</b>	<b>Evidence of Student Understanding</b>
<p><b>EVALUATE:</b> Students will select one of the noise issues they discussed and take action to solve the problem modeling the political process.</p> <p><b>EXTENSION:</b> Students will select one of the noise issues they discussed and take action to solve the problem modeling the political process.</p>	<p>Students will compare and contrast the indoor and outdoor sounds using a Venn diagram.</p> <p>After completing the outdoor listening activity, students will make a “sound map” that indicates the source and location of each sound.</p> <p>Students will select the problem they want to solve and take appropriate action (letters, email, in-person conversations, and newsletters).</p>	<p>The teacher will supervise the formation and completion of the project.</p> <p>The teacher will supervise the formation and completion of the project.</p>	<p>Completed student project.</p> <p>Completed student project.</p>