#### Department of Elementary Education Lesson Plan Format

Candidate	Date	Grade level
Janet Cerda	4/7/19	1 st
Subject Area & Topic Science & Sound	⊠ Single-day lesson ☐ Multi-day lesson	
English Language Development levels of stu  Emerging Expanding OR Bridging	dents in the class or group:  ELD 1 (Beginning)  ELD 2 (Early Intermediate)  ELD 3 (Intermediate)	Name of instructional model  Direct instruction Inquiry or problem-based lesson
□ English Only     □ IFEP (Initially Fluent English Proficient)     □ RFEP (Redesignated Fluent English Proficie	☐ ELD 4 (Early Advanced) ☐ ELD 5 (Advanced) nt)	Formal lesson evaluation ? (rubric, criterion list)  Yes No

## Lesson Objective(s):

Students will analyze sound and wavelengths through the Egg activity and the High/Low pitch activity at a 90% level of accuracy.

# Common Core or Content Standard(s):

NGSS 1-PS4-1. Plan and conduct investigation to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.

Materials, including technology and visual aids:

- Eggs
- Picture of materials inside the eggs
- High/Low pitch
- Slinky
- Sound information
- https://www.youtube.com/watch?v=3-xKZKxXuu0

Classroom Management Strategies, including room arrangements and student grouping plan:

- Students will sit in their spots at the rug while introducing lesson.
- Students will work in the circle table, desks, floor and rainbow table.
- Students will work with assigned groups during activities.
- Students will work in their assigned BUILD groups.

Strategies for Differentiation, Modification, Adaptation, SDAIE, and varied Communication Mode to be implemented: (List specific strategies for each student and/or for each language proficiency level represented)

- Students are provided with pictures to show what kinds of materials are in the eggs.
- Students are given a sample before they start working in groups.
- Visuals provided by watching YouTube video.
- Visuals (slinky) to show wavelength.

List Academic Language to emphasize: Sound wave, pitch, vibration, volume.

List New Vocabulary from lesson or text to introduce: N/A

Assessment Plan: (How will you determine the degree to which each student has met the learning objectives? Attach a rubric or criteria list for grading a student work product.)

Informal assessment with the Egg Graph and the High/Low pitch activity sheet.

## **Sequence of Lesson Procedures**

**Opening** (Provide motivation to learn new skill/concept + Explain Key Objective for the lesson)

- Boys and girls, today we will be switching off to science! I want us to watch a video about sound!
- <a href="https://www.youtube.com/watch?v=3-xKZKxXuu0">https://www.youtube.com/watch?v=3-xKZKxXuu0</a>
- We are going to be focusing on sounds! (A sound is caused by a vibration, which means to move back and forth quickly.
- Lets first go over some vocabulary words: Sound wave, pitch, vibration, volume.
- There is sound everywhere!
- We are all going to walk outside and listen quietly. We are going to do the same inside the classroom.
- If we you listen and stay quiet for a moment, what can you hear? Let's listen for a few seconds.
- What kind of sounds do we hear?
- Loud & Quiet is the volume of loudness. When you turn on your #<u>TV</u> and change the volume, you are changing the volume of the sound.
- When should we make loud volume? When should we make quiet volume?

Body of the Lesson (Engaging Instruction or Learning Activities + Teach new concept/skill + Demonstrate/Model/Examples + Check for Understanding + Guided Practice + Independent practice)

- Things that vibrate are our phones when they ring on silent! Can you think of other things that vibrate?
   Pair share!(electric toothbrush, game controller, hands, etc)
- Sound moves in waves. The vibration of an object moves in waves and that makes the sound we hear! (show slinky)
- NOW we are going to work in groups and we are going to move in stations.
- First group gets eggs; each of these eggs have all these things inside the eggs. The eggs are numbered
  so the recorder and observer can write about what is in the egg and answer questions and know
  specifically what egg your group is talking about.
- You will have to work with your group to see what you hear. You will have this paper to see what kinds
  of things are in the eggs, but you must figure out what you hear.

## **BUILD GROUP**

(In order to build groups, I will have the oldest student (check birthdays), to be the materials <u>manager</u>, then second oldest to be the checker, and so on.)

FIRST, students will work together to create a TEAM NAME. (2 minutes)

- Materials Manager/Traveler (Spy): Students will walk to the round table and grab-take 1 basket with 12 eggs, 1 piece of paper, 1 piece of paper with the images of what's in the egg, 1 pencil, 1 worksheet for observer.
- Checker: Will make sure that everyone is taking a turn to shake and listen to what is inside the egg.
   Student must be a leader and make sure everyone gets a turn.
- Recorder/Reporter: Students must listen to everyone's ideas and together come to an agreement
  and write down what they all decided, that is inside the egg. Student will use a simple recycled paper
  and write #1-12 (no worksheet created for this)
- Observer/Illustrator: Students will make observations of what sounds are louder and which sounds are quieter. The observer will be asking a question to the team and they need to answer. The

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students will draw the answer or write it down every time they shake an egg. Student must write down the egg number and either draw something or write a few words on the worksheet provided.

- o Is it a small or large object? Is the volume of the sound loud-high or low?
- O What makes you think that a specific object is inside the egg?

## The 5-E Framework.

ENGAGE: ALL

2 minutes

Talk to your team about the different sounds you hear? Make a prediction. Do you think the smaller the object, the louder the sound? Or The bigger the object the louder or lower the sound? SHARE ALL YOUR PREDICTIONS.

EXPLORE ALL

15-20 minutes

Work together by taking turns to shake and listen to the sounds the eggs are making.

Observe and ask questions: RECORDER

What questions do you have about the sounds that the objects are making?

EXPLAIN OBSERVER

15-20 minutes

Answer the questions (showns above) by drawing or writing down your ideas, as you shake and listen to each egg!

## ELABORATE

Inform students to pay close attention to the weight of the egg and the sound that comes out. Mention that weight plays and important role in what sounds come out as the object slams against the egg. <u>Give students an opportunity to explain what they think to their team and elaborate why.</u>

#### **EVALUATE**

10 minutes

- QUESTIONS to reflect on together,
  - O you think having a heavier objects makes a louder or lighter softer sound when you shake it against the egg?
  - Do you think that depending on the size of the object, we will hear a different sound?
  - o When do we hear hollow sounds?
  - ← How do the sounds of the popping corn and the marbles compare? How are they different?

**8 Multiple Intelligences** 

Commented [SFB1]: You will need to include formative assessments of the social skills as well as the content area skills for the students to show evidence of learning and team performance. Please add these.

It would also be helpful for you to include a voice-level chart for this

Musical: Provided a Youtube video in which students listen to some singing.

Interpersonal: Students must listen to their group members and come to an agreement about what they all have decided is in each egg.

Intrapersonal: Students must understand what they hear and feel when they are listening quietly. Students work on listening to the egg and noticing what sounds they notice, what *they* think.

Linguistic: Students work together to answer questions and share a discussion about their predictions before the lesson. Students will have chances to speak and use the vocabulary presented at the beginning. Logical: Students use logic to listen to a sound and then look at the images to be able to pair up the sound with the object on the images provided.

Naturalistic: Students understand that sound is everywhere, before the lesson I have students close their eyes and listen in silence. We will listen to nature, what's inside and outside the classroom.

Spatial: Students have the opportunity to draw their answers. Students also are provided with visuals of what is in the eggs.

Kinesthetic: Students get to be hands on, shake the eggs and listen to what is inside. Students will go outside, to listen to natural sounds.

Closing (Final activity or discussion based on essential questions. + Include a transition to next activity or subject)

- Boys and girls, lets get together to see if you had the right sounds!
- (go over the eggs and what each egg had.)
- Remind them about sounds.
- QUESTIONS to reflect on together,



- 1. Is it a small or large object? Is the sound loud or low?
- 2. What makes you think that a specific object is inside the egg?

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