



## Engineering Institutes:

### **Sound Sleuths!**

**Objective:** Students will be able to describe their sense of sound.

#### **Standards:**

SL.1.3. Speaking and listening

Comprehension and Collaboration

3. Ask and answer questions about what a speaker says in order to gather additional information to clarify something that is not understood.

#### **Materials:**

- **Water Bottles**
- **FX Trainer**
- **Paper Cups on string**
- **Metal Spoons on strings**
- **Book (Just to read a sentence)**

#### **Opening:**

- Lip read a paragraph from a storybook and then ask the students what they heard. Read the paragraph out loud this time and then ask the students again what they heard.
- After the students tell you what they heard, explain that our sense of sound lets us hear things that we would not be able to otherwise.

#### **Procedure:**

1. Introduce to the students that “Today we will be able to describe our sense of sound”.
  - Ask the question “What is sound?” (Possible Answers; Noise, Words that come out of our mouths etc.,)
  - **Answers:**
    - Sound is a type energy made from vibration.
    - **Sound** is **energy** that we can hear.
    - Sound is created when something vibrates. The vibration makes sound waves that go back and forth. The sound waves move back and forth through air, water or wherever the sound was made.
2. Introduce Cup Phones/Spoons explain that sound waves can travel through a string and then turned back into sound at the opposite end. Spoons: Also, it might be hard to imagine that sound waves can travel through solid objects as well as through the air. (Demonstrate the spoons just hitting the table; stating not very interesting) Then have someone try the activity).
3. After doing the 2 activities. Ask about the cups and hearing from end to the other. Sometimes what people say and what your brain interprets might be different.

4. Introduce FX Sound (Depending on time).
5. Discuss the sounds that they heard on the FX Machine, how some sounds are really loud and how some sounds are soft. Go into Bottle Shakers.
6. Have the students examine the materials on the table. The students will then pick one material to put into their bottle (10 of one material). Have the students put lids on the bottle.
7. Have the students write their name on the bottle
8. This time we will have the students listen to their maracas and discuss whether their maracas made a loud sound or a quiet sound.
9. Have the students take turn listening to each other's.

**Ending Question:**

Do they all sound the same? Why or why not?