

Week 36: Apr. 08 - Apr. 12 Grade Level(s): K-2,

Subject(s): Arts/Music (Science):

Exploring Pitch and Harmony through Sound, using "School Spirit" and "Egyptian Dance"

Duration: 45 minutes

Materials Needed:

Piano

- Trumpet (or recorded trumpet sounds)
- Rope
- Pictures or illustrations demonstrating the harmonic series
- Whiteboard and markers

Goal / Objective:

- Students will understand the meaning of pitch and harmony.
- Students will learn about the harmonic series through hands-on activities using voice, piano, and trumpet.
- Students will explore how sound travels and the concept of sympathetic tones using a piano and rope.

Lesson Plan:

Introduction: (5 minutes):

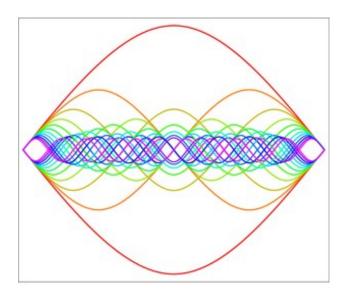
- Greet the students and explain that today they will be exploring sound through music and science.
- Review with students what they already know about sound and ask them
 questions like "What makes sound?", "Can you make different sounds with
 your voice?" and "Can you hum".

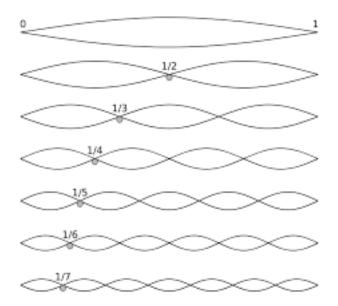
Activity 1: Exploring Pitch and Harmony (15 minutes):

- Define pitch as the highness or lowness of a sound. Play a high note on the piano and a low note, asking students to identify which is which.
- Introduce harmony as the combination of different pitches played or sung together. Demonstrate harmony by playing two notes on the piano simultaneously and explaining that they sound good together.
- Have the students participate by singing simple melodies in unison and then in harmony with a partner (Do-Mi, Do-Mi-Sol).

Activity 2: Understanding the Harmonic Series (15 minutes):

- Show pictures or illustrations of the harmonic series and briefly explain what it is.
- Use the piano to play the first few notes of the harmonic series, emphasizing how each note is related to the previous one.
- Demonstrate the harmonic series using the trumpet, playing a note and then gradually changing the embouchure to produce the next note in the series.
- Have students mimic the sounds using their voices, trying to match the
 pitches produced by the instruments-hum and slowly open mouth and hear
 added notes.





Activity 3: Exploring Sound Travel and Sympathetic Tones (10 minutes):

- Explain that sound travels in waves and that when one object vibrates, it can cause another object to vibrate sympathetically.
- Show how sound waves travel by vibrating a rope and observing the wave-like motion.
- Demonstrate sympathetic tones by striking a note on the piano and holding a other keys down, causing the other strings to vibrate sympathetically and be heard.
- Allow students to experiment with creating sympathetic tones using there mouth and various instruments.

6. Conclusion (5 minutes):

- Review key concepts learned in the lesson, such as pitch, harmony, the harmonic series, and sympathetic tones.
- Ask students to share one thing they learned or found interesting during the lesson.
- Encourage students to continue exploring sound and music in their everyday lives.

Assessment:

- Informal assessment through observation of student participation and engagement during activities.
- Checking for understanding through questioning during the conclusion portion of the lesson.

Arizona Arts Standards:

- MU1.CN1.1: Identify and demonstrate the difference between high and low sounds.
- MU1.CN1.2: Recognize and demonstrate basic elements of music, including rhythm, melody, and harmony.
- MU1.CN1.3: Perform simple patterns of steady beat and rhythm using body percussion and classroom instruments.

Arizona Science Standards:

- 1-PS4-1: Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.
- 1-PS4-4: Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.

