



# LEARNING ACTIVITY

## **Materials Needed**

- O Stick (wooden skewer, chopstick, tree branch, etc.)
- O String/yarn
- O 4 metal utensils (forks or spoons)

# **Grade Range**

Pre-K

### **Topics/Skills**

Science: Sound; Waves; Musical Instruments

### **Learning Standards**

NGSS: <u>Waves and Their</u> <u>Applications</u> National Music Standards

### Duration

20 minutes

### **Prep Time**

10 minutes

# **Fork Chimes**

Pleasing Sounds, Easy Play



Investigate sound, music, and instruments or just enjoy the pleasing sounds of these simple hand chimes.

## **Activity Challenge**

Create a chime out of utensils and observe the "music" it makes.

### **Preparation**

- 1. Review the Materials Needed list and collect materials.
- 2. Cut 4 pieces of string. They should each be around one foot long.

### To Do

- 1. Double tie a piece of string around the end of each metal utensil. Double tie the opposite side of the string to the stick.
- 2. Hold the utensils, now called "chimes", by the stick.
- 3. Shake the chimes to hear the tones.

### Observations

Compare the chimes sound to musical instruments. How are they alike? How are they different?

#### **Extensions**

- 1. Modify the chimes. Use thicker or longer string. Add more metal pieces. How does the sound change?
- 2. Use chimes to practice rhythm.
- 3. Investigate sound and instruments further with other RAFT Ideas, including *Sound Shakers, Straw Oboes, Glove-a-Phone*, and *Pan Pipes*.

### The Science behind the Activity

Vibrating matter creates sound. When students or the wind shake the chimes, the suspended metal pieces will hit one another creating vibrations. The metal pieces vibrate the surrounding air molecules, creating pressure waves. These waves travel to our ears and are then transmitted to our brains as electrical signals we perceive as sound.