How Vibrations Make Sounds

By Jane Runyon

assignment	vibration	wooden
sure	tone	plunk
wonder	bounce	homework
vibrations	bands	waves
change	another	wrap
same		

Directions: Fill in each blank with the word that best completes the reading comprehension.

Matthew always liked science. He knew Mrs. Kim would make the class fun. But today he was confused. Mrs. Kim gave each of her students a rubber band. Then she wrote the words "Music Class" on the chalkboard. The children looked at each other with puzzled expressions.

"It's time for science, not music, Mrs. Kim," said Josh finally.

"And why did you give each of us a rubber band?" asked Matthew. "You usually tell us to keep rubber bands off our desks."

"You are both right," answered Mrs. Kim. "And the answer is that we are going to combine science with music. You are going to make music with your rubber band."

"Huh?" came the sound from several children.

"First, I would like you all to find a partner," said Mrs. Kim.

The children quickly got with a friend.

"I want one of you to pull the rubber band tightly between your two hands," she instructed. "Now, I would like the other partner to pluck the rubber band like you would a guitar."

Different sounds were heard all over the room. "*(1)* _____ , plunk." "Twang, twang." "Uong, uong."

"Listen carefully," instructed Mrs. Kim. "Why do you think some of the sounds are different?"

The children watched each other carefully and listened. They talked among themselves. Finally, Nicholas said, "The thicker rubber bands are making lower sounds."

"Yes," said Laura, "and the thinner rubber *(2)* _____ are making higher sounds."

"Very good," said Mrs. Kim. "Now, who can tell me how the sounds are being made?"

No one answered right away.

"OK," said Mrs. Kim, "let's try a couple of experiments."

Mrs. Kim moved to the side of the room. She had a cake pan filled with water on a table. "Come closer, boys and girls, so you can see," she said.

When everyone was in place, Mrs. Kim dropped a pebble into the water. "What did you see happening?" she asked.

"I saw the water splash where the pebble hit," said Maddie.

"I saw little ripples of water forming rings around the splash," added Marcus.

"You are both right," said Mrs. Kim. "The rock caused the water to move. That is called a vibration."

"Like we plucked the rubber band to make it move?" asked Julie.

"Yes," answered Mrs. Kim, "just like that. The ripples are waves caused by the *(3)* _____ . That is how sound moves, in waves. Can you see those waves when they are sound waves?"

"I don't think so," answered Suzi.

"Let's try another experiment," said Mrs. Kim. She walked over to a glass jar on *(4)* _____ table. The top of the jar was covered with plastic wrap. The wrap was held tightly in place by a big rubber band. On top of the plastic were four pieces of popcorn.

"That's not going to be enough popcorn for the whole class," laughed Joey.

"No," answered Mrs. Kim, "but it will help you to see how sound *(5)* _____ can make another vibration. Marty, I would like for you to help with this experiment."

Marty stood by the table. Mrs. Kim asked him to get very close to the jar and shout his name as loudly as he could. When Marty did what he was told, the children cheered. They watched the pieces of popcorn *(6)* _____ up and down on the plastic *(7)* _____ .

"I moved the pieces of corn, and I didn't even touch them!" exclaimed Marty.

"You *(8)* _____ did," said Mrs. Kim. "The sound came from *(9)* _____ in your voice box. The sound waves they made vibrated the plastic wrap."

"Wow," said Marty, "no *(10)* _____ my mom keeps telling me to *(11)* _____ it down at home. I might break something!"

"You saw in the rubber band experiment we did that you can *(12)* _____ the sound that you make. Your *(13)* _____ *(14)* _____ is to find something at home that you can use to make a musical instrument. What kind of sound do you want? Will it be low? Will it be high? Do you have to pluck something to make a sound? Experiment and see."

You can try the *(15)* _____ experiment. Try using glasses filled with different amounts of water. Use a pan and a *(16)* _____ spoon. Use a piece of cardboard and some fishing line. What kinds of sounds can you make?