Exploration Learning Guide
Sound Gallery

DISCOVERY MUSEUM
science. nature. play.

Use multiple senses to not only hear, but also to feel and see, sound as you investigate how **sound waves** are created by the **vibration** of an object.

TRY THIS

Exhibits: Tuning Fork Booth, Bucket Radio

What does a vibrating tuning fork look, sound, and feel like when you gently touch it? Strike the tuning fork against the mat/stopper to produce vibrations.

What do you sense when you put a finger or elbow on one of the "buttons" on the Bucket Radio? Was it surprising? Describe what you experienced.

Explore how different objects can carry sound, and in some case, be used to **amplify** (make louder) sound.

TRY THIS

Exhibit: Bucket Radio

Listen closely to the Bucket Radio. Using the tools provided, can you make the radio louder? Order the tools from most effective to least effective. Talk about any similarities or differences between the tools that might determine how well, or not well, they amplify sound.

Experiment with unique musical instruments as you explore the **relationship** between the size of an instrument and the sound it produces.

TRY THIS

Exhibits: Rubber Ball Music Wall, Tubulum, Bass

What happens when you press or squeeze the rubber balls, slap the different white tubes, or twang the Bass strings? How do you think each instrument produces sound?

Examine the row of rubber balls, white tubes, or strings. What do you notice about the size of each pipe or string and the sound it produces? Is there anything surprising about the sound of each one?

Dig Deeper

Reflect and communicate

What surprised you in this exhibit? What questions do you still have?

Make connections

Visit the *Light & Color Gallery* to explore how light, like sound, travels in waves. In the *Sound Gallery* you can feel, hear, and see sound vibrations. How can you use multiple senses as you investigate in other galleries? Can you feel, hear, and see air as you experiment in the *AirPlay Gallery* or explore nature in *Discovery Woods*?

Explore more at home

Investigate together beyond the Discovery Museum. Continue asking questions, making observations, designing experiments, and predicting outcomes: Look around your home or in a vehicle for speakers like on a radio or TV. What do you notice when music or other sounds come through the speaker? Do different kinds of music make you feel differently? Use materials found around your home to create unique musical instruments like those at the Museum. How do they produce sound?

As you and your child engaged with the exhibits in the Sound Gallery *you may have explored concepts that are connected to the Massachusetts Science and Technology/Engineering Curriculum Frameworks and specifically taught in Pre-Kindergarten, Grades 1, 2, 4 and 6.*