

# SCIENCE @ THE LIBRARY

## TUNING FORK SPLASH

Sound is nothing more than vibrations moving through a medium. When the tuning fork is struck, it vibrates rapidly. We cannot see the air molecules bouncing off of the fork because they are invisible to our eyes but we can see sound in something thicker like water. The splash pattern in water is similar to what happens in the air with sound bouncing off in all directions.

### **MATERIALS NEEDED:**

Tuning Fork  
Glass of water

### **WHAT TO DO:**

Strike a tuning fork on a wooden block or rubber stopper, then quickly place the tips of the tuning fork into a cup of water, which will make the water splash everywhere.

### **WHAT IS HAPPENING?**

The vibrations of the tuning fork are forcing the water to splash out of the cup.

### **QUESTIONS TO CONSIDER:**

How are mass and pitch related? Try tuning forks of different pitch to see if they cause different amounts of splashing.

Will the splashing be different with different amounts of water in the cup?

Will the splashing be different if the depth of the tuning fork in the water differs?