

See Some Sound

Action

Sound waves cause grains of rice to jump.

Grade Level

Grade 1 - Senses

Grade 3 - Sound

Grade 3 - Simple Machines

Materials

- Plastic bowl
- A large saucepan
- Uncooked rice
- A large, wooden spoon
- Tape
- Aluminum foil

Instructions

- Cut a piece of aluminum foil slightly larger than the opening of the bowl. Stretch the foil over the opening of the bowl, creating a smooth, tight surface and then tape the edges down around the outside.
- Sprinkle a few grains of rice on the foil surface.
- Hold the saucepan close above the foil surface. Hit the pan with the wooden spoon. The grains of rice will jump.

Safety

No safety concerns.

Hints

The aluminum foil must be tight across the bowl and the saucepan must be very close to the foil surface.

Science Principle

When anything makes a sound, it vibrates and causes the air around it to vibrate too. Air vibrations, called "sound waves", spread through the air. When the waves reach your ears, you hear a sound. This experiment shows how the sound waves move through the air and hit the aluminum foil causing it to vibrate. The sound waves hitting the aluminum foil cause the rice to jump.