



## Shrieking balloons

At-home science activity





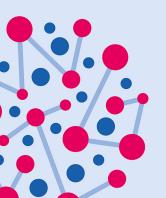






## You will need:

- Two balloons
- Small coin
- Small hexagonal nut





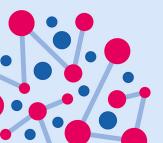
**twig** EDUCATION



- Place the coin inside a balloon, inflate and tie.
- 2. Place the hexagonal nut inside a second balloon, inflate and tie.
- Hold the balloon (with the coin inside) tightly with the palm of your hand flat over the tied end.

**twig** EDUCATION

- 4. Swirl the balloon quickly, so the penny spins around the inside of the balloon. No sound will be made.
- 5. Repeat this with the balloon containing the hexagonal nut. The balloon should begin to shriek.
- 6. Why are the results different? Swipe to find out...



- The coin is smooth, so it doesn't vibrate against the inside wall of the balloon.
- The sides of the hexagonal nut, however, rub against the balloon to create vibrations and sound.
- The faster the nut spins, the more vibrations it produces in the balloon. These vibrations create the sound waves.
- The number of vibrations each second is known as the frequency of vibration, and it affects the pitch produced.
- Higher frequency = higher pitch of sound.

