

## Activity 4

# THE SCIENCE BIT



**Thanks for helping me with my soundproofing curiosity challenge.  
I've been so impressed with all your hard work!**

Before I head off to soundproof the music studio that I'm working on, I thought I would share some more fun facts about what we have learnt.

### CAN YOU STOP SOUND?

Noise pollution is excessive sound that you can't see but that can harm people and creatures who hear it. By understanding how sound works, we can help reduce noise pollution.

Sound in its most basic form is energy. For example, when you blow up a balloon you are using your energy to push air into the balloon. This energy is then released as a sound wave if the balloon pops.



### CAN YOU MAKE A SOUNDPROOFING BOX?

People who play drums often try to make changes to the room they play in to make sure the loud sound of the drums don't disturb other people – this is soundproofing.

There are two different ways of soundproofing; absorbing as much of the sound as possible OR stopping the sound from escaping the room altogether. Absorption tends to be the easier one to try.



### HOW COULD YOU SOUNDPROOF YOUR HOUSE?

Scientists researching how loud objects are, sometimes test them in anechoic chambers.

An anechoic chamber is a room designed to completely absorb sound and is usually covered from floor to ceiling in foam shapes. These rooms are also used for preparing astronauts for how quiet space is.

