

# Sound and distance

Outstanding Science Year 4 - Sound - OS4D007

## Learning Objective



I can investigate how distance affects how well we can hear a sound.

Me:

Teacher:

## Scientific question

Which sounds can you hear from furthest away?

## You will need:

- Access to the school yard
- A partner

## Method

Work with a partner. Practice making the five different body sounds - **hand clap**, **sniff**, **cough**, **foot stamp**, and **thigh slap**. Predict how far away (in steps) you would need to be in order for each sound to be inaudible (too quiet to hear). Record your results in your table.

Start with the hand clap. Let your partner walk 10 steps away from you, facing away from you. Clap your hands. If they cannot hear it, record '10' on the results table. If your partner can hear it, they raise their hand, and then walk another 10 steps away. Repeat until your partner can no longer hear the sound and record on the results table. Repeat for the other 4 sounds. When you have finished, swap roles with your partner.

## National Curriculum Statutory Requirements

4DS - recognise that sounds get fainter as the distance from the sound source increases; LKS2W2 - setting up simple practical enquiries, comparative and fair tests; LKS2W5 - recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables; LKS2W7 - using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions;

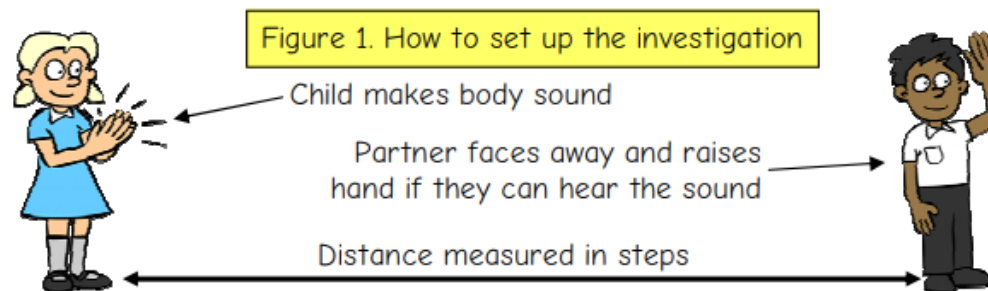


Table showing the distance at which different body sounds could no longer be heard

	Distance at which sound became inaudible (steps)	
	Prediction	Observation
Hand clap		
Sniff		
Cough		
Foot stamp		
Thigh slap		