

## **About Classroom Acoustics\***

Hearing and understanding are important parts of the learning process. A noisy classroom can make these tasks difficult. Noise in the classroom is more than students talking. There are other factors that make it hard to hear and understand in the classroom.

**Acoustics** is a term used to talk about how sound travels in a room. There are factors in the room design that may make sounds louder or softer. Examples include floor rugs, ceiling type, and air ducts. **Classroom acoustics** is the term for these issues in schools.

## **Background Noise and Reverberation**

Two things cause poor classroom acoustics: too much background noise and/or too much reverberation.

**Background noise** is any sound that makes it hard to hear. In a classroom, background noise can come from many places, including the following:

- Sounds from outside the building, such as cars and lawnmowers
- Sounds from inside the building, such as students talking in the hallway
- Sounds from inside the classroom, such as air conditioning units and students in the room

**Reverberation** describes how sounds act in a room after they first happen. Sounds stay in the room when they bounce off desks or walls. If many sounds do this at once, it can get very loud.

## **Problems Caused by Poor Classroom Acoustics**

When classroom acoustics are poor, it can cause problems with how a student

- understands speech;
- reads and spells;
- behaves in the classroom;
- pays attention; and/or
- concentrates.

It is important to keep the classroom as quiet as possible for all children.

## **Good Classroom Acoustics Helps Everyone**

A quiet classroom helps teachers and students. It is especially important to have a quiet room if a student has

- hearing loss in one or both ears;
- an ear infection or fluid in the ear;
- a learning disability;
- auditory processing disorder;
- speech and language delay; and/or
- attention problems.

Teachers also do better if there are good classroom acoustics. Talking in a loud classroom strains the teacher's voice and may lead to voice problems.

### **Improving Classroom Acoustics**

It is important to think about background noise and reverberation in any space used for learning. Some simple ways to make a classroom quieter include the following:

- Having soft-closing doors and drawers reduce slamming in the classroom.
- Having soft Furnishing
- Having curtains or blinds
- Fixing felt buffers on chair or table legs to reduce the noise of scraping chairs
- Closing windows and doors
- Having as many carpeted areas as possible
- Fitting specialist acoustic boarding to ceiling or walls.
- Having upholstery on the seating – Possibly cushions or covers, fabric table cloth
- Suspending displays from the ceiling to reduce reverberation
- Using fabric in classroom wall and table displays to absorb sound
- Separate spaces for individual high-concentration work and group work reduce noise disruptions and increase focus on the task.
- Study screen or floor screen for group work if it's not possible to find a quiet room so pupils can stay in the classroom – I've found some products on this website <https://www.ajproducts.co.uk/blog/tips--trends/tips-for-better-acoustics-in-the-classroom>