

Despite building regulations outlining ideal listening conditions for classrooms, many are not covered, or do not meet the required standards. The National Deaf Children's Society (NDCS) has a wealth of information concerning current conditions and campaigns surrounding the issue of classroom acoustics.

Improving Acoustics



Hard surfaces create lots of reverberation! Try:

- ◆ Adding acoustic tiles or baffles.
- ◆ Using soft furnishing (cushions, curtains or beanbags).
- ◆ Lay carpet (or use chair tips on hard floors).



Prioritise Listening

Reduce background noise as much as possible:

- ◆ Turn off noisy appliances such as TVs & fans.
- ◆ Check for external noise & close windows and doors if necessary.
- ◆ Think about the child's seating position—are they close enough to hear? Can they see you clearly?
- ◆ If the child has additional amplification (such as an Assistive Listening Device), use it!
- ◆ If you have access to a Specialist Teacher for Hearing Impairment, they can help you to identify barriers to listening and

Additional sources of help and information:

www.ndcs.org.uk.

World Health Organisation: Environment and Health: Noise.

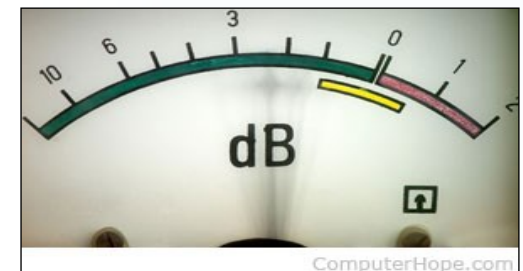
www.gov.uk: BB93, acoustic Design of Schools: Performance Standards.

*Dockrell and Shield: Acoustical barriers in classrooms—British Educational Research Journal Vol 32, 2006



Understanding acoustics and improving listening conditions for Hearing Impaired children.

Advice for parents, nurseries and schools.



Acoustics... what does this mean?



www.clipartlibrary.com

noun
- the properties or qualities of a room
or building that determine how sound is
transmitted in it.
(Dictionary definition)

- ♦ The acoustic properties of a room determine how easy it is to listen—to follow and understand speech.
- ♦ Studies* have shown that poor acoustics can affect educational attainment.

Assessing a listening environment.

Signal : Noise Ratio (SNR)



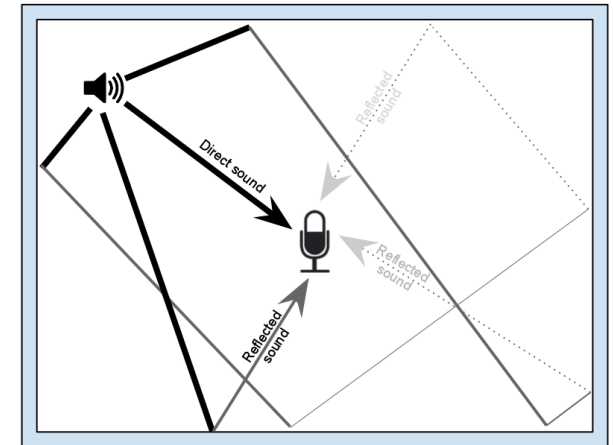
Source: Pinterest.com

The *signal* is the sound we want to hear (usually speech).

The *noise* is the competing background sound.

Younger children, and those with a hearing impairment, need a greater SNR to understand speech.

Reverberation



Source: Zenpho.co.uk

Reverberation is when sound is reflected back from surfaces. The “echoes” arrive at the ear at slightly different times and can make speech discrimination harder. The time needed for the sounds to die away is known as the *Reverberation Time (RT)*.