

LEARN

The effect of noise on learning

Noisy classrooms

Background noise should not exceed **35dB** during teaching sessions

however typical levels are **47dB**

Communication barriers

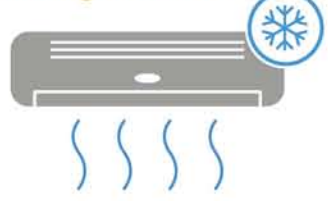
- multiple people speaking
- noisy rooms
- reverberant surfaces
- inexperienced listeners

Noise sources

Teaching equipment



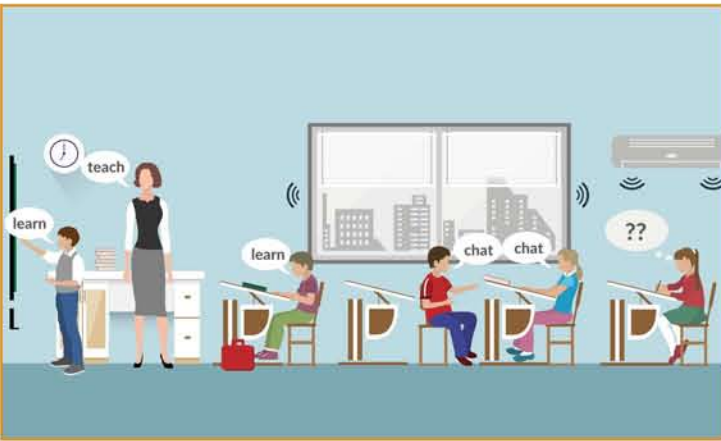
Building services



Pupils

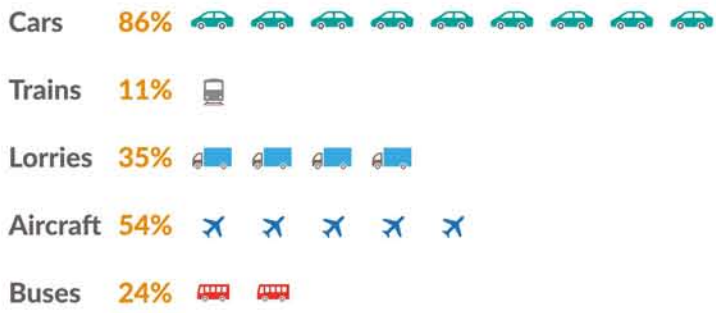
classroom babble typically

65dB



Compromises the children's ability to hear the teacher and their peers

Outside noise sources (London schools)



Effect of noise in the classroom

40% of primary school children may have some form of hearing impairment at any one time



Reduces:

Speech intelligibility



Sustained attention



Poorer memory



Reading ability



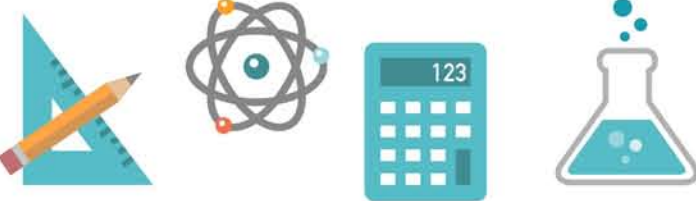
Auditory discrimination



Adversely affects children

- not being taught in their first language
- with attention deficit disorder
- with speech and language difficulties

Subjects worst affected are maths and science



Poorer performance in standardised testing (SATs)

Solutions to improve speech intelligibility

Sound absorbing ceiling tiles

10% improvement in speech intelligibility tests after installation of sound absorbing ceiling tiles

