



Lowerhouse Junior School

Key Learning in Science – Sound



Key Learning: Sound

Key Learning

LKS2: Year 4 – Sound

Vibrations

- **Identify how sounds are made, associating some of them with something vibrating.**
- **Recognise that vibrations from sounds travel through a medium to the ear.**
- **Find patterns between the volume of a sound and the strength of the vibrations that produced it.**
- **Recognise that sounds get fainter as the distance from the sound source increases.**
- Sounds can be made in a variety of ways (pluck, bang, shake, blow) using a variety of things (instruments, everyday materials, body).
- Sounds travel away from their source in all directions.
- Vibrations may not always be visible to the naked eye.

Pitch

- **Find patterns between the pitch of a sound and features of the object that produced it.**
- Sounds can be high or low pitched.
- The pitch of a sound can be altered.
- Pitch can be altered by changing the material, tension, thickness or length of vibrating objects or changing the length of a vibrating air column.

Muffling/blocking sounds

- **Recognise that vibrations from sounds travel through a medium to the ear.**

Notes and guidance (Non-statutory)

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Pupils should explore and identify the way sound is made through vibration in a range of different musical instruments from around the world; and find out how the pitch and volume of sounds can be changed in a variety of ways.

Working Scientifically (Featured skills)

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- *Finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses*
- *They might make ear muffs from a variety of different materials to investigate which provides the best insulation against sound.*
- *They could make and play their own instruments by using what they have found out about pitch and volume.*

Additional suggestion from Lancashire for working scientifically opportunities which enhance learning and support using ICT across the curriculum

- *This unit provides an ideal opportunity for using data logging equipment to detect/measure and compare sounds.*

▫ Sounds are heard when they enter our ears (although the structure of the ear is not important key learning at this age phase). ▫ Sounds can travel through solids, liquids and air/gas by making the materials vibrate. ▫ Sound travel can be reduced by changing the material that the vibrations travel through. ▫ Sound travel can be blocked.		
UKS2 - Not statutory within NC2014 (although schools could choose to divide the above unit into a LKS2 unit on 'Producing Sounds and Vibrations' and an UKS2 unit on 'Pitch and Muffling Sounds')	UKS2 - N/A	UKS2 - N/A