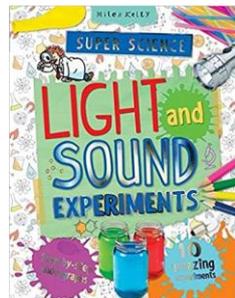
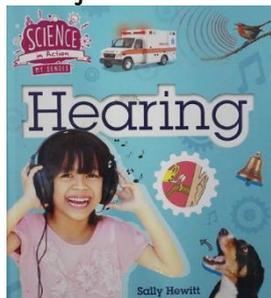


**National Curriculum Objectives**

- Y3/4**
- asking relevant questions and using different types of scientific enquiries to answer them
  - setting up simple practical enquiries, comparative and fair tests
  - making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
  - gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
  - recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
  - using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
  - using straightforward scientific evidence to answer questions or to support their findings.
- Y4**
- 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 pitch of a sound and features of the object that produced it
  - 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

**Books to support learning:**

**Non-fiction:**



**Key Knowledge and Vocabulary**

Know that sounds are made when objects or materials **vibrate**

Know that **vibrations** from sound sources travel through different materials to the ear  
 Know sound can travel through **solids, liquids** and **gases**  
 Know that some materials allow sound to pass through (**transmit** sound) them more easily than others

Know that sounds get **fainter** as the distance from the **sound source** increases  
 Carry out an investigation to explore what happens to sound as it gets further away  
 Draw conclusions and describe what they have found out?

Name some of the reasons why preventing sound to travel and reach the ear is sometimes important  
 Plan a test to measure how well different materials **muffle** sound  
 Draw conclusions and explain which materials are the best at **soundproofing**

Know that the term '**pitch**' describes how **high** or **low** a sound is  
 Know that the term '**volume**' describes how loud or quiet a sound is  
 Recognise changes in pitch and identify high and low notes  
 Investigate different instruments and make generalisations about pitch

Know that the pitch of a stringed instrument depends on the length, thickness and tightness of the string  
 Suggest ways of testing what happens to the pitch of a string when you alter the length, tightness and thickness and draw conclusions from their observations

Know that sounds can be made by air vibrating  
 Suggest and understand ways to change the pitch of a sound made by air  
 Describe how to change the length of the **air column** vibrating to change pitch

**Links to School Values**

Thankfulness