Overview – Year 4 Spring 1 Sound

Lesson	Objectives	Scientific enquiry	Equipment list
1 How are sounds made?	• Know how wounds are produced • Understand how different instruments work • Make an instrument	Make an instrument Follow a simple practical procedure	2 lolly sticks, 1 straw, scissors, 3 rubber bands
2. How does sound travel?	• Give examples of different mediums • Describe how an echo is made • Investigate how sound travels through different mediums	Make a string phone Follow a simple practical procedure	2 paper cups, twine, sharp pencil, Sellotape
3.How do our ears work?	• Recall the structure of the ear • Describe the function of the parts of the ear • Explain how sound is detected by the human ear	Make a model ear	Balloon, plastic bowl, water, straw, Sellotape, cardboard box, cardboard tube, card
4. Big or small?	• Define the volume of a sound • Describe how volume can be increased • Explain some negative effects of loud sounds	Make a loudspeaker	Large square piece of card, marker pen, crafts, glue, scissors
5. High or low?	• Define the pitch of a sound • Describe how pitch can be changed • Explain how ultrasound is used by animals, including humans	Investigate how the length of an object affects its pitch Prediction, comparative test, conclusion based on evidence, evaluation and suggestions for improvement	Paper straws, lolly stick, glue, washi tape/ paper

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6. Can you keep the noise down?	• Identify unwanted sounds • Suggest ways to reduce sounds • Investigate ways to reduce unwanted sounds	Sound proofing experiment – Comparative test – which is the best material for soundproofing? Prediction, observation over time, variables, averages, repeats, conclusion based on evidence, evaluation and suggestions for improvement	Box with lid, data logger, materials to line the box