

Topic: Sound	Year 4 Age 8-9	Title: String Telephones
Working Scientifically Review: Identify differences, similarities or changes related to simple scientific ideas and processes		Concept Context Recognise that vibrations from sounds travel through a medium to the ear
Assessment Focus <ul style="list-style-type: none"> • Can the children explain how to make the best possible string telephone? • Can the children suggest reasons for the improvements? 		
<p>Activity <i>Today we are acoustic engineers.</i> Explore how to use a string telephone. Discuss how this works; vibrations in air, vibrations in string, the cup amplifies the vibrations, vibrations travel to ear. Provide a range of pots (yoghurt pots, paper/plastic beakers, polystyrene cups etc) and different types of string/wool. In groups, ask children to investigate what makes the best string telephone, supporting with questioning as necessary. Give time for the children to reflect and test their designs so that they can be modified and improved. After the investigation, children demonstrate their telephones to the class and explain why their telephone is/is not good. Discuss how their research has informed their design – detailing improvements they have made and reasons for making those improvements.</p> <p>Adapting the activity Support: During investigation ask questions to support evaluation, e.g. What have you changed? Which is better? Why is it better? Extension: Can you eavesdrop on another phone call? (Connect another string). Other ideas: Use a data logger to measure sound (decibels)</p> <p>Questions to support discussion</p> <ul style="list-style-type: none"> • How does the sound travel through your telephone? • What have you changed on your telephone? • Which was the best telephone? Why? • How can you make your telephone better? • How will you know if your telephone is better? • Does your telephone always work? What stops your telephone working? • What modifications did you make to your original telephone design? Why? Did they have the desired effect? <div style="text-align: right;"> </div>		
Assessment Indicators Not yet met: Can select the best string telephone but not explain why in terms of properties. Meeting: Can talk about features which make a good telephone, <i>e.g. all work when the string is tight, the bigger cup is better.</i> Possible ways of going further: Can relate observations to vibrations, <i>e.g. it doesn't work when you hold the string because you stop it vibrating.</i>		



Teacher box 7 - time to reflect. See TAPS pyramid for more examples.