

<p>Topic: Sound</p>	<p>Year 4 Age 8-9</p>	<p>Title: String Telephones</p>
<p>Working Scientifically Review: Identify differences, similarities or changes related to simple scientific ideas and processes</p>		<p>Conceptual Knowledge recognise that vibrations from sounds travel through a medium to the ear</p>
<p>Assessment Focus</p> <ul style="list-style-type: none"> Can the children explain how to make the best possible string telephone and suggest reasons for the improvements? 		
<p>Activity <i>Today we are acoustic engineers.</i></p> <p>Ask a child to help you demonstrate 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 plastic pots (yoghurt pots) and different types of string/wool. In groups, ask children to investigate what makes the best string telephone. After the investigation, children demonstrate their telephones to the class and explain why their telephone is/is not good.</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>Key Questions</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? 		
<p>Assessment Indicators</p> <p>Not yet met: Can select the best string telephone but not explain why in terms of properties.</p> <p>Meeting: Can talk about features which make a good telephone, e.g. <i>all work when the string is tight, the bigger cup is better.</i></p> <p>Exceeding: Can relate observations to vibrations, e.g. <i>it doesn't work when you hold the string because you stop it vibrating.</i></p>		