

Part 3 How is sound transmitted?

Activity No	Activity Name	Lesson type	Activity Description	
3.1	Bang, bang!	Engage, Explore & Explain	Students explore making sounds with simple equipment in the laboratory and locate sounds while blindfolded. Students are introduced to longitudinal waves and explore sound waves by varying their frequency, amplitude and wavelengths. They watch and listen to a bell ringing in the absence of air.	
		Hands-on & Digital		
		Long		
3.2	Speed of sound	Explore & Explain	Students will time the speed of sound outside using a starter pistol and/or use data-logging equipment to explore the speed of sound. They will convert units, derive solutions to problems and construct a bar graph of speeds of sound in different media	
		Hands-on & Digital		
		Medium		
3.3	Seeing with sound	Explore & Explain	Students explore the uses of reflected sound through a simulation Doppler lab and a video of how vision-impaired people use echolocation.	Optional
		Digital		
		Medium		
3.4	Hearing	Explore & Explain	Students review their understanding of the ear and relate it to hearing. They explore hearing loss and consider whether earphones are damaging.	
		Classroom & Digital		
		Long		
3.5	Music to my ears	Elaborate & Evaluate	A formative assessment where students choose a method to present their understanding of sound, as applied to a musical instrument.	Optional
		Classroom		
		Long		