Sound Year 4

Science Concepts	**Nature** Knowing about the natural world	**Phenomenon** Observing facts and events	**The Real World** Knowing about scientists and science in our everyday lives
National Curriculum	• 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		• Asking questions • Performing tests • Observing and measuring • Identifying and classifying • Gathering and recording data
Common Misconceptions	• Sound cannot pass through materials • Sounds seep through small gaps in a door/wall and that is why we can hear them • Sound only goes to those who are listening • Before a sound can be heard, the listener must concentrate on it first • Sound is inside a musical instrument waiting to be let out when it is played • Sound only travels directly from the source to the listener and nowhere else		
Safety	• Care needs to be taken when strings/elastic bands are stetched. If over-stretched, strings/elastic bands may break and flick back painfully		

Lesson	Learning Intention	Concept
1. What is sound? (NOA)	• Describe what sound waves are • Describe how we can see sounds • Explain how we can stop sound	 Phenomenon
2. How are different sounds produced? (NOA)	• Describe how sounds are produced in general • Describe ways that different sounds can be made • Make your own musical instrument	 The Real World
3. What are pitch and frequency? (NOA)	• Describe what the pitch of a sound is • Describe ways to change the pitch of a sound • Give examples of objects that produce high and low pitch sounds	 Phenomenon
4. Who was Heinrich Hertz?	• Enquire about the life and achievements of a scientist	 The Real World
5. What do we mean by amplitude of sound? (NOA)	• Describe what we mean by the amplitude of sound • Describe how to change the amplitude of a sound • Give examples of high amplitude and low amplitude sound	 Phenomenon
6. What are acoustics? (NOA)	• Describe the science of acoustics • Describe how scientists dampen unwanted noise • Describe how engineers build venues to improve sound quality	 The Real World
7. How do instruments make different sounds?	• Relate understanding of sound to a range of musical instruments • Explain an application of sound using scientific knowledge and understanding	 The Real World
8. How does sound travel? (Twinkl PP)	• Describe what happens to sound over distance • Explain how a string telephone works • Follow and write a method	 The Real World  Phenomenon

9. Who was Alexander Bell?	• Describe the work and achievements of Alexander Bell • History of the telephone	
10. How does science help people?	• Describe how hearing aids help deaf people to hear	
Review	• Complete end of unit quiz. • Return to cover page and identify any misconceptions they may have had at the beginning of the unit, or add anything further to the question.	