

Science of Sound

Lesson Plan- The Archive Centre

Key Stage: 2

Type: The Archive Centre Length: 2 hours

Curriculum links: Science, History Key Themes: Sound, History, Careers

Learning Objectives:

• Understand how sound is made and how it travels, exploring vibrations, pitch, volume and distance

• Find out how the ear works

• Find out how sound has been recorded throughout history and discover Norfolk Record Office's sound archive.

Time	Activity	Details	Resources	
1 min	Introduction	What are we learning about today?	N/A	Class
5 mins	Sound at Norfolk Record Office	Find out about Norfolk Record Office, sound archives, and how sound recordings play a role in preserving history	PowerPoint	Class
3 mins	Sound waves	Learn about sound waves, and how they relate to vibration	PowerPoint	Class
3 mins.	How do we hear?	Discover how we hear by exploring the inner workings of a human ear	PowerPoint	Class
14 mins	Amplitude, pitch, frequency	Discover how sound travels through different mediums, and learn why there is no sound in space Use a decibel meter to measure sounds made by the class to explore amplitude Explore pitch and frequency, listening to examples of musical instruments from around the world, and animal sounds, discussing whether the sounds are high or low pitch	PowerPoint Video Sound clips Decibel meter	Class

20 mins	Amplitude, pitch, frequency	Discover how sound travels through different mediums, and learn why there is no sound in space.	PowerPoint	Class			
		Use a decibel meter to measure	Video				
		sounds made by the class to explore amplitude	Sound clips				
		Explore pitch and frequency, listening to examples of musical instruments from around the world, and animal sounds, discussing whether the sounds are high or low pitch	Decibel meter				
10 mins	Can sound be dangerous?	Discuss how loud sounds can damage our ears, comparing decibel levels and discussing how we can protect our ears	PowerPoint	Class			
20 mins	Sound Mapping	Active listening activity encouraging the children to focus on the sounds around them, working in pairs to log the sounds they hear in a 'sound map'. The children will be encouraged to discuss what they hear and consider distance and direction when creating their sound maps.	Downloadable resource	Pairs			
Class splits into 2 groups							
15 mins	Recording sound	Learn about Thomas Edison who discovered how sound could be recorded and look at different examples of audio formats from throughout history, seeing real examples from the Norfolk Record Office handling kit.	PowerPoint and handling kit	Group 1			
	Sound Archive	Visit the Record Office strong rooms		Group 2			
	Tour	and see the Tape Store where the					
		sound archives are kept					
15 mins		Groups change over		Groups 1 and 2			
Reserve activity/follow up resource							
5 mins	Careers in sound	Discover people in Norfolk who work with sound, from a Sound Designer who creates soundscapes for theatre performances, to a Sound Engineer who works to preserve historical sound recordings, and with musicians to create music	Videos	Class			