Explorify Resources: Sound for ages 7 – 11

Below are Explorify activities that can help you meet teaching objectives links to sound for ages 7 – 11 together with suggested follow up activities.

Curriculum statement Year 4	Explorify		Suggested use
	Activity	Type	
identify how sounds are made, associating some of them with something vibrating	Lyre Bird	WGO	The Superb Lyrebird mimics sounds from its environment including a camera shutter, a chainsaw (sadly), and the calls of other birds. You could make a chicken in a cup which uses a cup as a sounding board.
	What's that sound	PS	Children use their voices to recreate the sounds they hear in the video. What other sounds can children create with their voices? Can the other children guess what they are? Here's something unexpected as an interesting follow-up for a group at a time: the sound of coat hangers.
	Skip a beat	LWCYH	The sound of a heart (and a foetal heart) beating is produced by the opening and closing of valves each time the heart 'pump' contracts. In this video from the Royal Society, the sound waves produced are powerful enough to levitate an object.
	Sounds like science	OOO	Three instruments – maracas, recorder, xylophone – that create sound vibrations in different ways. Evelyn Glennie, playing xylophone, is deaf so feels the vibrations through her fingertips or feet. A PSTT project called Growing Music involved children in growing bamboo and making pan pipes.
	Tap it out	LWCYH	The sound of tap dancing along with a piano accompaniment. You could look here for some further information about how the sound is created by a metal plate on the sole of the shoe.
recognise that vibrations from sounds travel through a medium to the ear	Rice and rhythm	WGO	As a drum is beaten, grains of rice jump on its skin and the surrounding air also vibrates. This video from the Science Museum shows sound waves in action.
	Hidden depths	ZIZO	A close look at a human ear is the perfect lead into investigating string telephones.

	Pink and knobbly	ZIZO	A cat's ear in close-up. Compare it with a human ear in Hidden depths. How will the differences in a human ear affect how many sounds we hear? This could lead to a discussion about pitch and the point at which humans and cats can detect sound.
	Martian Waves	WGO	Children will have been taught that sound travels through air. They may also have measured sound using data loggers. In this video, children learn how sound does travel on Mars, and how it's measured. A possible plenary.
	Protect your ears	PS	Children design ear defenders and investigate which materials are best at insulating sound. A reminder that sounds travel through a medium.
	Spark it up	LWCYH	The sound of fireworks comes from a combination of explosive gases, burning chemicals and air vibrating as it passes through the tubes that contain the firework mixture. The sound waves travel through the air to reach our ears. This activity pairs well with Exploding lights which shows fireworks (visually only) against a soundtrack.
recognise that sounds get fainter as the distance from the sound source increases	Keeping Track	LWCYH	Sound of a train coming into a station. Notice how the farther away you are from the sound, the quieter it is. Use as a plenary after a measurement of sound experiment, or to assess if children can correlate how distance affects volume.
	What if you could hear every sound at equal volume?	WI?	Why it is necessary to protect our ears? Good background science provided. A prompt for the Problem Solver activity Protect your ears.
	Prepare for launch	LWCYH	The sound of the Space Shuttle launching from Cape Canaveral.
	That's a flap	LWCYH	Birdsong and calls, which could lead to a discussion of sound for communication, and a way to signal territory.
find patterns between the pitch of a sound and features of the object that produced it	Stringy sounds	MB	Follow on activity from Sounds like science. Children could make their own instruments (e.g. rubber band guitar), learning how the thickness, tension and tightness of a material changes its pitch. Work together to recreate a song with simple changes in pitch. Ideas are available here for a Sound Circus in which children experiment by making various instruments. Some children might enjoy researching scientific discoveries about sound here.

	In the waves	LWCYH	How dolphins (like bats and whales) use echolocation. (There are lots of bat-related activities on Explorify). Invites a discussion about the pitch of their signature sounds. You could play the game Bat and Moth.
	Bottle orchestra	WGO	Adding liquid to bottles slows the speed of vibrations of the glass. Full bottle = lower pitch; empty bottle = higher pitch.
find patterns between the volume of a sound and the strength of the vibrations that produced it	The sound of silence	WGO	The wingbeats of a pigeon and peregrine falcon disturb the air and make a sound, whereas a barn owl flies silently. The more movement, the greater the sound. The amount of turbulence in the air is shown by the disturbance to a tray of feathers, over which all three birds fly.
	Make sound louder	PS	In this creative construction task, children make a device to amplify their voices. The background science explains the importance of the cone shape in amplifying sound. You could ask children to name five things they cannot hear. This video explains and models how we hear.
	Excellent equipment	LWCYH	Sound of a rope and chain pulley being wound, and a can opener in action. Could a can be opened more quietly, or a cup of tea stirred noisily/quietly? What makes the difference?
	On target	LWCYH	The sound of arrows being fired from a bow, flying through the air then hitting the target. The more the bowstring is pulled back, the more energy is in the arrow when released, and the louder its sound will be.
	When we were young	LWCYH	The sound of a baby, some lambs, and puppies. Why does the volume of the sound change?
	Like a flash	LWCYH	Sound of thunder, lightning, rain. Watch this Royal Society video which explores how pitch and volume in music affect mood.
LISTEN, WHAT CAN YOU HEAR? is a new set of Explorify activities. While some (above) are more suited to elements of the curriculum for sound, these activities (highlighted in blue) could be used as a lesson	Tide and seek	LWCYH	The sound of waves at the seaside, and seagulls!
	Tour de force	LWCYH	The sound of bicycle gears, pedals, and a bell.

starter. Focus on the sound and try to identify it just by listening. **These are <u>sound only</u> activities!**	Thin ice	LWCYH	The sound of ice skates on ice.
	Feeling hot, hot, hot	LWCYH	The sound of an egg and bacon frying, and wood burning.
	Apple of your eye	LWCYH	The sound of a tree, stones and coins falling. Volume could be related to the mass of the objects and the distance of their fall.
	Terrific transformations	LWCYH	The sound of water boiling.
	Totally potty	LWCYH	Too easy to guess! The sound of a toilet flushing. Might lead children to explore sounds made by water. Other examples of liquid-water sounds on Explorify include Bottle orchestra, Terrific transformations and Tide and seek.
	Tumbling timber	LWCYH	Sound of a chainsaw and a tree falling.
	Sharing is caring	LWCYH	Another easy one to guess, perhaps. We hear gentle birdsong and, above it, the sound of a swarm of bees.
	Scan this over	LWCYH	The unfamiliar sound of a hospital MRI scanner will get children guessing but need to be explained.
	Rock my world	LWCYH	Sound of a controlled explosion in a quarry, and of coal mining and transportation.
	Bottle it up	LWCYH	Sound of glass bottles being recycled, and glass milk bottles being filled.
	Sew what	LWCYH	Sound of a sewing machine.

	Material world	LWCYH	Sound of heavy crockery being laid on a wooden table, a window smashing, metal sheets crashing together, and sandpaper being used.
	Night time antics	LWCYH	A variety of woodland sounds: birds, the wind, and the movement of trees.
	All crushed up	LWCYH	A trickier one to guess. The sound of a car being scrapped.
	Scrub-a-dub-dub	LWCYH	The sound of someone having a wash in a bathroom.
	Let's get physical	LWCYH	Tricky one to guess. Sound of an athlete cycling on an exercise bike.
	Wild things	LWCYH	Sound of an African savannah.
	African beat	LWCYH	Sound of a rainforest in Cameroon: crickets, tree frogs 'singing' and big raindrops falling on leaves.