

8 Sound Collectors



1 Unit summary

This unit focuses on children's fascination with sound. There is a particular emphasis on children using different types of technology to collect and make sounds, as well as creating sounds using a range of instruments and everyday objects.

Science learning

This unit will help to further develop children's understanding of sound, including that we hear sounds with our ears. They will learn how they can manipulate sound to make it louder and quieter, higher and lower. They will also experience activities to support their developing ideas that different materials make different sounds. Some children will begin to recognise that when a sound is made something vibrates.

Science for practitioners

Sound is made when something moves or vibrates, e.g. if you hit a drum the skin of the drum vibrates. That vibration sets the air particles above the skin moving and they bump into the particles close to them, which makes them vibrate too, and so on.

The bigger the vibration, the louder the sound. Pitch is the frequency of the sound waves; if they are very frequent then the sound is high-pitched, less frequent and the sound is lower.

Science progression

This unit provides the foundation for the development of concepts in Key Stage 2 relating to how sound is made; pitch and volume; that sounds travel through a medium to the ear and that sounds get fainter the further they are from the sound source.

Switched on Science links

- Key Stage 1, Year 1, Topic 2 – Celebrations

Prime areas

Communication and Language

Children follow instructions, e.g. when making their own musical instruments or learning from a musician how to use an instrument. When talking about their experiences, children can use past and present and are able to connect ideas with what happens.

Personal, Social and Emotional Development

Create a cosy area where children can sit and listen to quiet, calming sounds, e.g. trickling

water, soft music or birds singing. Children can use this area for quiet time, if they want to calm down, or have been upset. Children learn that when someone is in this area they may join them but not disturb them, learning respect for others.

Physical Development

Develop children's control and co-ordination in large and small movements by engaging children in moving around like animals from Saint-Saëns' *'The Carnival of the Animals'* or Prokofiev's *'Peter and the Wolf'*.

Specific areas

Literacy

Children collect their own words beginning with different sounds and put them in their own 'Sound Bag' or basket, e.g. collecting objects beginning with the sound R or M. They can also collect words with different syllables or sounds within the words too.

Children understand a story and are able to create sound effects, e.g. when listening to Michael Rosen's *We're Going on a Bear Hunt*.

Mathematics

Children work with sound patterns, e.g. they recognise a beat pattern, are able to describe numerically the number of beats, repeat them and create their own.

They could also count the number of steps taken away from an object until they can no longer hear the sound.

Understanding the World

Accommodate children's religious and cultural backgrounds by giving children experiences of listening to and playing different music from around the world.

Develop understanding of sound technology from electronic keyboards, karaoke machines and digital recorders and data-loggers.

Expressive Arts and Design

Children could work alongside musicians, e.g. children in the school who play instruments, parents or local bands representing the cultural background of the community. The musicians could play instruments and show children how they work, so that children can make their own musical instruments.



2 Getting ready



Resources

Animal sounds, Beads, Boxes, Buttons, Data loggers – sound, Digital keyboard, Karaoke machine, Masking tape, Musical instruments, Online resources via My Rising Stars, Pebbles, Plastic bottles, Plastic containers, Pots and pans, Range of beaters, Range of sound makers, e.g. mobile phone, bicycle bell, keys, Sand, Shakers, Sound morphers, Sound recorders, String, Talk Tins, Talk Cards, Tins, Tubes.



Websites and books

Peace at Last – Jill Murphy

Five Minutes' Peace – Jill Murphy

Quiet! – Paul Bright and Guy Parker-Rees (Illustrator)

We're Going on a Bear Hunt – Michael Rosen and Helen Oxenbury (illustrator)

Saint-Saëns' *'The Carnival of the Animals'*, or Prokofiev's *'Peter and the Wolf'*

'The Sound Collector' by Roger McGough poem clip



Key Vocabulary

Collect, Collector, Drums, Ears, Hear, Hearing, High, Instrument, Loud, Loudest, Low, Music, Musical, Musician, Noise, Pattern, Quiet, Quietest, Record, Senses, Sound.



Home science links

Ask parents and carers if any of them play an instrument and would be willing to play for the children. Ask them if they can donate sound makers to school, e.g. wind chimes, unwanted toys and sound books. Invite children to learn a favourite song at home and then sing it in class, play an instrument or share a sound maker that they have made.



Health and safety

Children should be taught to:

- never make a loud sound in someone's ear, as they could damage the person's hearing.



3 Explorations

Over the duration of this topic, keep adding different musical instruments and sound makers for children to explore and share with others, to extend their experience. Encourage children to add their own too.

Introductory activity

Listen to Roger McGough's poem '*The Sound Collector*' about someone who enters a house and collects the sounds, such as sausages sizzling, a baby crying, a toaster popping. Working in small groups, children could role-play being the Sound Collector and walk

around the school collecting sounds, e.g. by using an Easi-Speak microphone.

Create a 'Sound Collector's Bag' for children to collect sound makers from indoors and outdoors to share with children during circle time.

Focussed exploration

Activity 1 – Body Percussion

Children love being human musical instruments, being able to use parts of their body to make a range of sounds, from humming to clapping and stamping, shuffling feet, tapping hand on open mouth, clicking fingers, using mouth to make different sounds from large Os to shh and clicking tongues.

They could do this in a 'Body Percussion' studio – an area of your setting with a mirror so children can watch themselves using their body and create their own musical sequence changing pitch and volume.

Activity 2 – Pass the Sound On

Working with a small group, start off with a single sound that has to go round and be repeated by each member of the group. Children then take the lead and could, e.g. make a sound; a rhythm pattern or series of loud, quiet then loud sounds; a set number of beats or changes in pitch, for

the other children to copy. Children will delight in making the pattern more and more complex, remind them that they have to remember it and call 'Break the Rhythm' whenever someone gets it wrong, which means that they have to listen carefully to each other.

Activity 3 – Water Music

Turn the water tray into a magical water music experience where children use a wide range of objects to create different sound effects. At first you might think about ensuring that there is an adult exploring alongside children, modelling how different sounds can be made in the water. Children could try some or all of the following:

- The sound of pouring water from different height using a range of containers, spoons, etc.
- The sound of bubbles by blowing through plastic hoses, straws or plastic pipes into the water.
- Tapping metal bowls floating on water with a stick, with or without water inside them.

Free-flow exploration

Activity 1 – Sound Collector's Cave

Create a Sound Collector's Cave, house or area where children can take sound makers that they have collected and try them out, and also leave them for other children to try. In the Sound

Collector's Cave there could be materials to make their own sound makers. Place new items inside on a regular basis for children to explore, to extend their learning.

Activity 2 – Sound Recording Studio

In this area children have access to a range of sound recording technology, e.g. microphones, talk tins, headphones, video recorders, where they can explore creating different sounds, music, recording them and

also playing them back. Don't forget that at first children might require the support of an adult in this area, to work alongside them to model how to use the different technologies.

Taking it further

Organise a sound celebration where groups of children plan and create their own performance to other children and adults; use a stage area outdoors so that their performance is given an authentic feel. Talk with the children about what

happens during performances, such as having someone introduce and thank the performers, using a microphone, timing and the etiquette of clapping and cheering (not booing) and the performers taking a bow at the end.



4 Characteristics of effective learning

Playing and exploring

- Children can engage in open-ended activity by trying out the range of sound recording technologies, challenging themselves to make and record sounds.
- Children can play with what they know, using their sound makers to role-play a performance.
- Children can show that they are curious by engaging with objects and materials and using their sense of hearing to explore them.

Active learning

- Children can maintain focus on their activity, paying attention to different sounds being made and following instructions.
- Children can persist e.g. even if they get rhythm wrong, and are proud of their accomplishments.

Creating and thinking critically

- Children can find new ways of doing things, testing their ideas of how to make different sounds.

Early learning goals

ELG 1 Listening & Attention: All activities; **ELG 2 Understanding:** All activities; **ELG 3 Speaking:** All activities; **ELG 4 Moving & Handling:** N/A; **ELG 5 Health & Self-care:** Health and safety; **ELG 6 Self-confidence & Self-awareness:** All activities; **ELG 7 Managing Feelings & Behaviour:** All activities; **ELG 8 Making Relationships:** All activities; **ELG 9 Reading:** Free-flow exploration 1; **ELG 10 Writing:** Focussed exploration 3; **ELG 11 Numbers:** Focussed exploration 2; **ELG 12 Shape, Space & Measure:** N/A; **ELG 13 People & Communities:** Where children access instruments and songs from other cultures; **ELG 14 The World:** Free-flow exploration 1; **ELG 15 Technology:** Free-flow exploration 2; **ELG 16 Exploring & Using Media & Materials:** Free-flow exploration 1, Taking it further; **ELG 17 Being Imaginative:** Free-flow exploration 1, 2 and Taking it further.