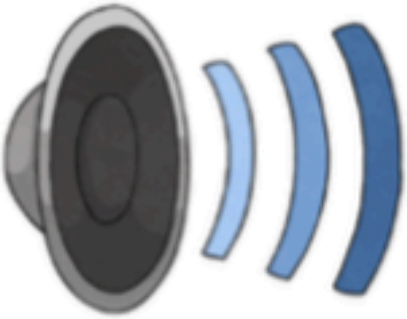
Sound and Hearing Home Support Pack



Introduction

If you wanted to record this learning, you could:

- Create a scrapbook with photos, drawings, writing and diagrams
- Create a photo album with captions - we have used Pic Collage (app) in school before
- Ask your child to create videos explaining their learning as if they were the teacher

Lesson One - Introduction

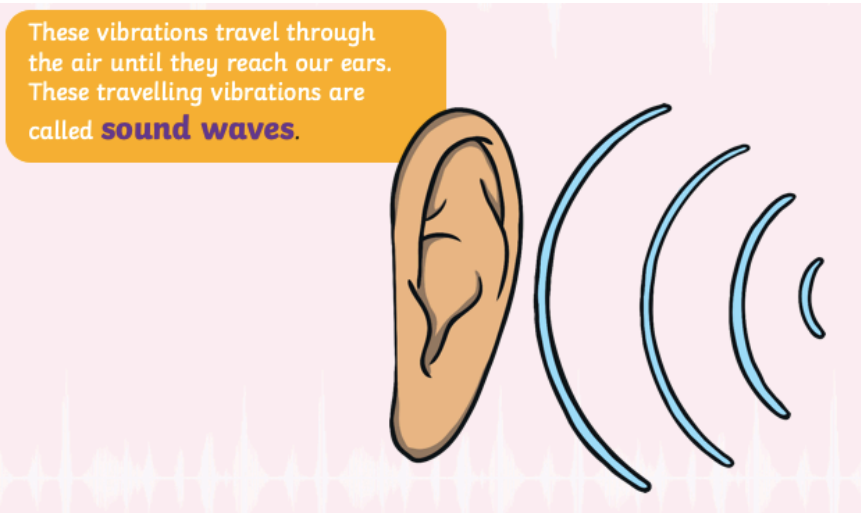
Use the next sheet to record your child's ideas about what they already know about sound or use the questions below to discuss sound. This way you can see what your child already knows and if they have any misconceptions that will need to be addressed.

Some key questions could be:

- Where does sound come from?
- Is all sound the same?
- Can sound be loud or quiet?
- Can sound be high or low?
- Is sound natural or man made?

Watch BBC video which explains how a sound is made: https://www.bbc.co.uk/bitesize/topics/z3hhvcw/articles/z3wf34j

Ask your child to go on a sound hunt, listening outside, around the house etc. Can they identify the source of the sound? Please make sure that your child knows and understands the word 'source'. They might be able to link this back to light sources when we did our previous science unit on light and dark. Use the table (next page) to record the sounds.




What do I already
know about sound?

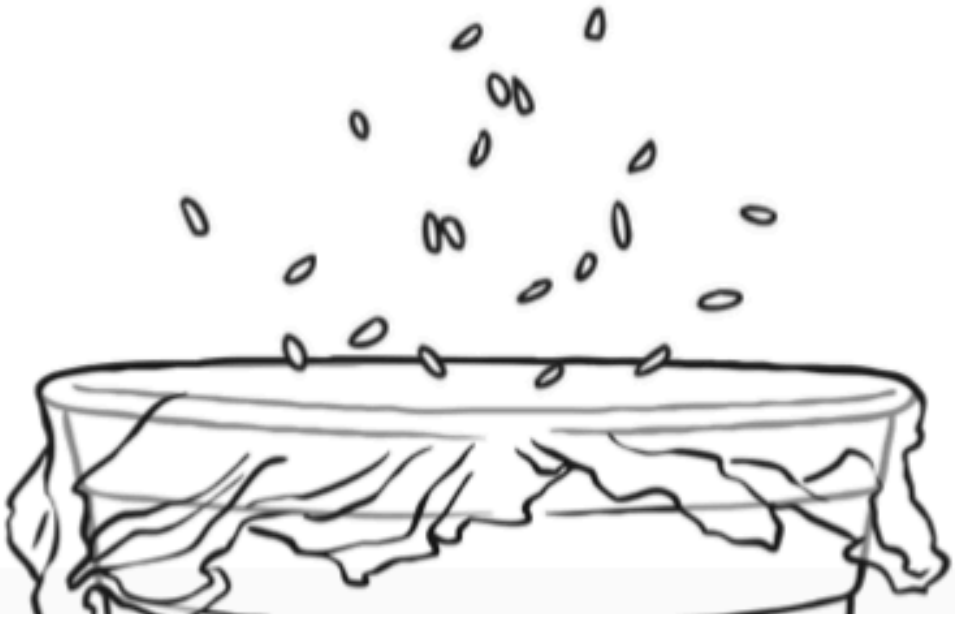
Sound Walk.

Sounds I can hear	Source of the sound - where it came from.

Lesson Two – Seeing Sound

You could make the below simple drum or if you had a drum at home, feel free to use this instead.

Learning Objective	To explain how sound is produced by vibrations.
Science Unit	Energy and Forces: Sound
Skills Development	Observing
Materials Needed	Glass/Cup Cling film Elastic band Dry rice Musical instrument 
Steps	1. Wrap the cling film over the top of the glass. 2. Secure the cling film with elastic bands - make sure it fits tightly. 3. Put some grains of rice on the cling film. 4. Play the instrument close to the glass.
Scientific Principles	You will see the grains of rice vibrating on the cling film. Sound is created by vibrations. These vibrations travel through the air as a sound wave.



Lesson Three - Creating Sound

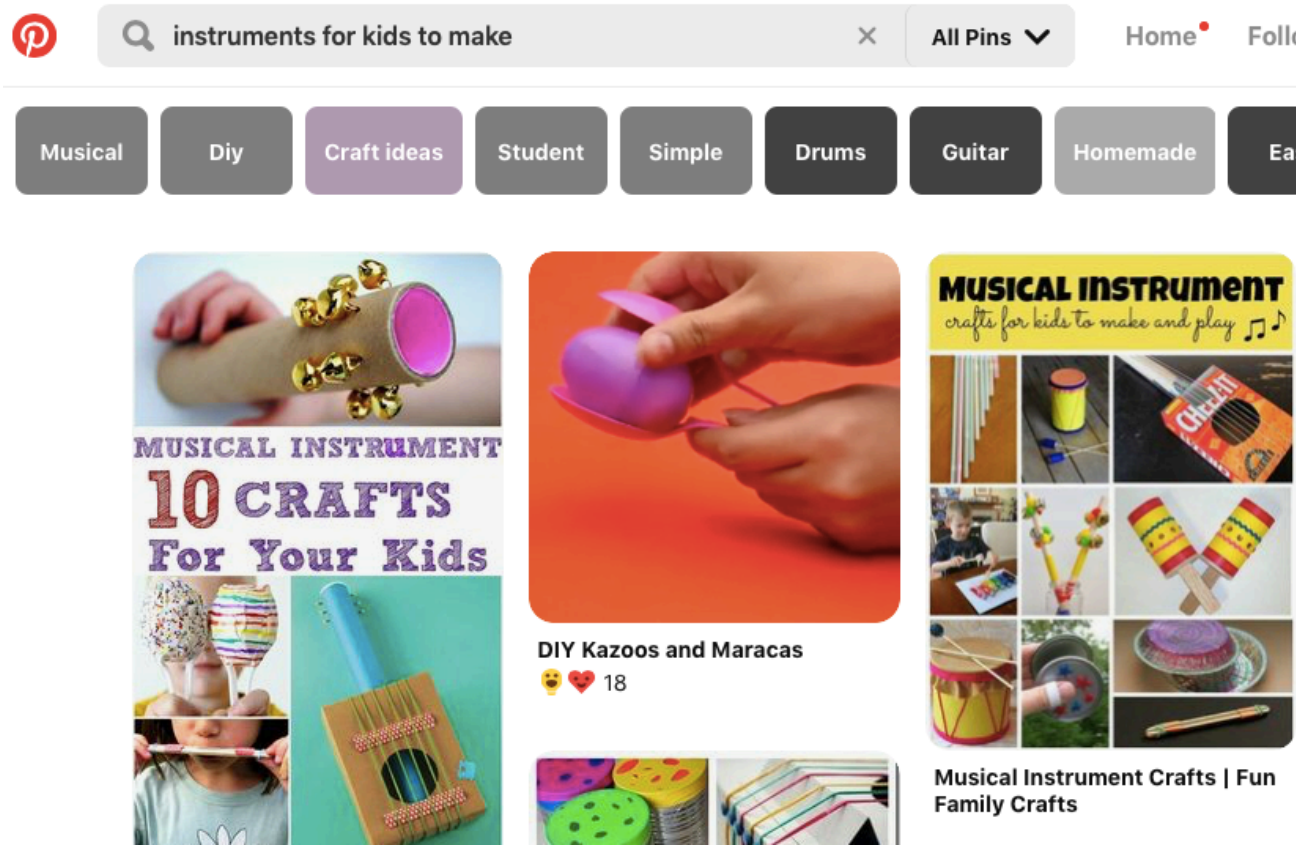
Watch these clips to get your started:
https://www.bbc.co.uk/bitesize/clips/zj6mhyc
https://www.bbc.co.uk/bitesize/clips/znjd7ty

Does your child want to make a string, wind and percussion instrument? How could we do that? discuss ideas.

Research and come up together with some ideas using Google or Pinterest. Challenge your child to create their own instruments. Ask: How is the sound being made? Which part of the instrument is vibrating? Is it a high sound or a low sound? Why?

Ensure your child knows that the sound may be cause by the air vibrating too i.e. inside a tube.

Can your child draw a diagram of their instrument with labels of the materials they have used?



Lesson Four - How does sound travel?

Watch: https://www.bbc.co.uk/bitesize/clips/zcqd7ty to get you started.

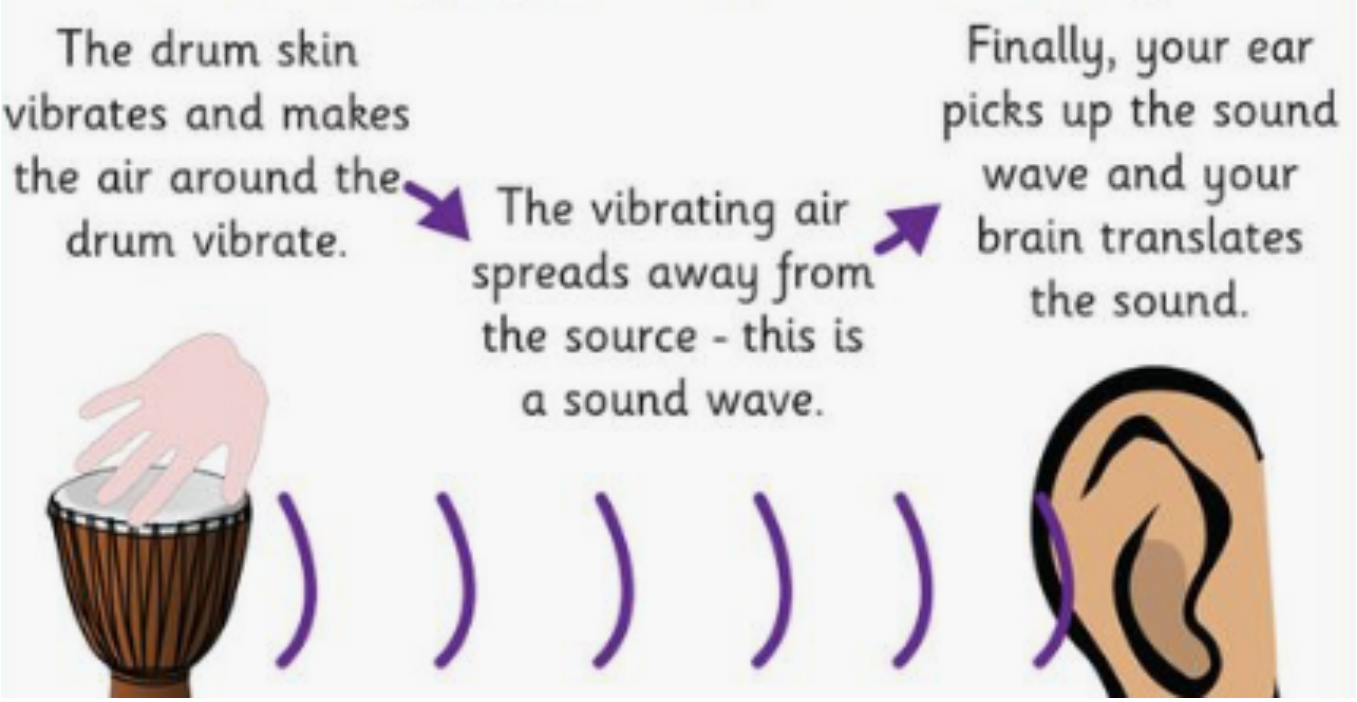
Do demonstration of how sound travels to our ears using your child to act out the process.

You stand at one end of your house/space/garden and talk quietly. Ask your child to keep moving away step by step until they can't hear what you're saying. Explain that sound becomes quieter the further away you are.

If you throw a stone in a pond, it will produce ripples. As the ripples spread out across the pond, they become smaller. When sound vibrations spread out over a distance, the sound becomes quieter, just like ripples in a pond. You could show this in a full bath by dropping a small stone or marble in.

You could use your instruments made in the previous session to also explore sound and distance.

You could organise this learning to create a poster like below:



Other experiments and further ideas

- Make a string telephone. Which string is better for making the sound travel? How long can the string be for the sound to travel?

- Explore how you can stop a sound by soundproofing. Explain that material can absorb the sound waves. Use an iPad or phone to play a song or sounds. What can we do to make the sound disappear without turning down the volume? Research ideas together, test and experiment different materials around the home.

- Use bath time to explore what sounds are like through the water. Are they the same?

- How does the ear work? Explore and research.

- Use garage band on the iPad/iPhone to explore the pitch of sound. Can you make the instrument go higher and lower? How does that happen?