

SOUNDING IT OUT (LEVEL 1)

Description	Learners will explore sound and music exploring different types of sound by making their own instruments and writing sound patterns.
Leading Question	Can you make your own music?
Total Time Required	1 hour a day for 5 days (total of 5 hours)
Supplies Required	Rubber bands, Metal Hanger, String, Paper Cup, Plastic Containers, Paper and Pen
Supervision	Medium
Subjects	Science, Mathematics and Literacy
Learning Outcomes	<ol style="list-style-type: none"> 1. Understanding how sound travels 2. Quality of sound, vibrations, pitch and timbre 3. Learning patterns through beat and rhythm 4. Using CVC words and rhymes
Previous Learning	None

DAY 1

Today you will learn about the different qualities of sound and how to make your own music!

Suggested Duration	Activity and Description
5 minutes	<ul style="list-style-type: none"> • Learners will explore the different qualities of sound and make their own music and song! Learners will explore sound waves and how sound travels
30 minutes	<ul style="list-style-type: none"> • Learners will go outside to the window and try and hear the different kinds of sounds they can hear indoors and outdoors including pressure cookers, vacuum cleaners, cars honking, birds chirping
20 minutes	<ul style="list-style-type: none"> • Learners will illustrate the 10 different types of sounds they hear (5 inside and 5 outside their home) • Guardians and/or teachers will explain to learners that sound is a form of energy that is caused when vibrating materials produce waves that move through matter. These waves have different characteristics such as frequency and amplitude, which will determine the properties of sound such as pitch and loudness. The form of the human ear can receive sound

	<p>waves as vibrations and convert them to signals that are processed by the brain.</p> <ul style="list-style-type: none"> Literacy extension: Learners will label the different sounds that they have illustrated.
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DAY 2

Today you will explore timber, pitch and vibrations by making two instruments

Suggested Duration	Activity and Description															
30 minutes	<ul style="list-style-type: none"> Learners will explore pitch that describes how low or high a note sounds. Input from guardians/teachers: Sound is made up of vibrations or waves. These waves have a speed or frequency that they vibrate at. The pitch of the note changes depending on the frequency of these vibrations. The higher the frequency of the wave, the higher the pitch of the note will sound. Just as the strings inside an instrument create different sounds so do the plucked rubber band instruments. Learners will make "instrument 1" rubber band instruments to investigate vibration and pitch Learners will gather some rubber bands of different sizes and thickness and some empty plastic containers, empty cardboard boxes etc. Learners will stretch different rubber bands around each container so that they across the opening and start plucking and playing Learners will pluck in order from thinnest to thickest noticing that the sound gradually changes from high-pitch and vibrating fast to low-pitch and vibrating slowly Learners will then try from short lengths to longer lengths and notice it goes from high-pitch and vibrating fast to low-pitch and vibrating slowly Learners will experiment with the pitch and fill out the below table to confirm the speed of vibration and the pitch sounds depending on the length and thickness of the rubber bands. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Thickness of Rubber band</th> <th style="width: 33%;">Speed of Vibration</th> <th style="width: 33%;">Low or High Pitch Sounds</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Length of Rubber band</th> <th style="width: 33%;">Speed of Vibration</th> <th style="width: 33%;">Low or High Pitch Sounds</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Thickness of Rubber band	Speed of Vibration	Low or High Pitch Sounds							Length of Rubber band	Speed of Vibration	Low or High Pitch Sounds			
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	<table border="1"> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table> <ul style="list-style-type: none"> Learners will confirm that shorter rubber bands will vibrate faster Learners will choose their favourite “string” instrument of the ones that they made as their “instrument 1” 						
30 minutes	<ul style="list-style-type: none"> Learners will explore timbre. This is the quality of sound that helps us identify different musical instruments playing the same notes in the same pitch. Learners make “instrument 2” which will demonstrate how vibrations happen Learners will need a metal hanger, a piece of string and a paper cup Learners will tie one end of the string to the hook of the hanger and attach the other end to the cup by poking a hole in the bottom. Learners will hold the cup to your ear and let the hanger swing free. Learners can walk around the room and bump the hanger into objects made from different materials. Learner will choose their favourite sound or timbre quality made when their hanger hit any particular object and that will be “instrument 2” <i>TIP: Learners can explore the attached link for more details</i> https://www.pbslearningmedia.org/resource/lsp07.sci.phys.energy.chladni/vibration-patterns-on-a-chladni-plate/ Numeracy Extension (numbers and algebra): Use ordinal numbers (first, second, third, ..., tenth) to describe the order of a set of instruments 						

DAY 3

Today you will explore beats and rhythm by making and playing their own sound patterns

Suggested Duration	Activity and Description
30 minutes	<ul style="list-style-type: none"> Learners will write their own Sound Patterns for example clap, clap, stomp, clap, clap, stomp, etc. Learners can then write that pattern down using colors to represent it, such as red circle, red circle, blue square; red circle, red circle, blue square, etc. Once the learners understands this concept, he / she can write her own sound patterns and make them more complicated

<p>30 minutes</p>	<ul style="list-style-type: none"> • Learners will make their “instrument 3” own sound shakers to explore volume and timbre • Learners will make sound shakers with clean plastic containers with lids and a variety of indoor and outdoor items like paper clips, pennies, buttons, marbles, cotton balls, rice, shells, leaves, seeds, pebbles or sand. Place the items in different containers and shake! • Learners will observations what sounds they hear? Are they sharp, clear, dull or muffled? How can you make the sounds louder or softer? • Learners will now try and the sound pattern they previously made using different types of shakers
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DAY 4

Today you will write your own song!

<p>Suggested Duration</p>	<p>Activity and Description</p>
<p>10 minutes</p>	<ul style="list-style-type: none"> • Learners will pick a story that they want to tell in the song or a message that they want to share e.g. i) What it is like being at home and what you have been doing, ii) A little bit about me, iii) What my family is like, iv) my pet etc.
<p>30 minutes</p>	<ul style="list-style-type: none"> • Learners will think of and write their own rhymes. Learners will rhyme line 1 and 2 and then line 3 and 4 in a AA-BB scheme for a 4 line poem an example can be: <ul style="list-style-type: none"> o Lucy is my little yellow cat o She loves to sleep on my mat o All day long we run o And play in the sun • Tip: Learners can rhyme practicing using the CVC words that they are familiar with for example “at” “an” “am” words or “in” “un” “en” words
<p>5 minutes</p>	<ul style="list-style-type: none"> • Learners will think of title of the song.
<p>20 minutes</p>	<ul style="list-style-type: none"> • Learners will set their poem to the sound-pattern beat they created before or develop a new sound pattern or meter to tap on each word that they write.

DAY 5

Today you will finish your song and perform it!

Suggested Duration	Activity and Description
10 minutes	<ul style="list-style-type: none"> Learners can now add in the instrument 1-2-3 that they developed to the song and sound pattern
20 minutes	<ul style="list-style-type: none"> The family will listen to their final song and tune. The family will think about whether the beat or sound pattern is catchy, the lyrics are meaningful, and rhyme and the instruments are nice accompaniments
30 minutes	<ul style="list-style-type: none"> Learners will reflect on what they learned. Learners can close their eyes when listening to a song and reflect on whether the lyrics rhyme, they can tap out the sound pattern or beat, identify the pitch of the story and also draw out what they feel the song is communicating and what they mood is

Additional Enrichment Activities	Learners can make multiple songs based on different CVC words, moods or situations.
Modifications for Simplification	<ul style="list-style-type: none"> Learners can identify sounds patterns of existing songs and adapt an existing song Learners can make their own song using CVC words of their choice and tap out sound patterns and beats

ASSESSMENT CRITERIA

A majority of my learners were able to:

- Create three different instruments.
- Create a beat with sound patterns.
- Write lyrics that rhyme and have meaning.

- Develop a music piece.