

## TS Symphony Orchestra

# How to Use this Guide

**TSOUND KIDS** is a series of musical activities for children, using easy-to-make homemade instruments.

Originally, we created these activities for families needing extra learning content at home. However, since then, we felt they could also be used in the classroom, which is why we enlisted the help of Marilyn Lee, OCT, to adapt the content into lesson plans.

There is something for everyone in these activities—from playing with noise makers, to creating music, all the way to drumming a complex rhythm.

We hope these activities inspire you and your students.



Principal Education Conductor & Community Ambassador

### **CONTENTS**

TSOUND KIDS 1 How to Play a Bottle like a Flute



TSOUND KIDS 4
How to Make



TSOUND KIDS 7 - Part 1

How to Play
a Cardboard Box



TSOUND KIDS 2
How to Make



TSOUND KIDS 5

How to Make a Double Reed from a Plastic Straw



### **TSOUND KIDS 7 - Part 2**

How to Make & Play a Homemade Drum Set



### **TSOUND KIDS 3**

How to Make Glasses "Sing"



### **TSOUND KIDS 6**

How to Make Music with Your Family



TSOUND KIDS 1



## a Bottle like a Flute

### **Learning Goals:**

- We will learn how sound is created when a flute is played.
- We will explore sounds and pitches when playing a bottle like a flute.

Grades: K-4

### **Curriculum Connections:**

- Gr. 1-4 Math Measurement (Capacity)
- Gr. 1-4 Music Elements of music (Pitch, Dynamics, Timbre)
- Gr. 3 Science Forces Causing Movement
- Gr. 4 Science Sound

### **Overall Expectations:**

Exploring Fundamental Concepts -Elements of Music (e.g. Pitch, Timbre, Dynamics,)

#### Materials:

- Empty glass or plastic bottles of varying sizes (with narrow openings)
- Water
- Measuring cup

### THE LESSON

### Minds On:

Brainstorm the question "How do you think air creates sound?" Fill in a KWL chart (see page 7). You can fill in the rest of the chart when the task has been completed.

- 1. Watch the TSOUND KIDS video "Playing a Bottle like a Flute"
- 2. Review how to blow air to create sound when playing a flute.
- 3. Ask students, "What happens when the air is blown to create the sound?"
- 4. Direct students to try putting their lip close to the opening of the bottle and blowing air across the top of the bottle to create a sound. Students will have to blow with a bit of force to hear a sound. (If they are having trouble, have students use their other hand to hold up a finger in front of the opening and blow air directly towards their finger.)
- 5. Have the students experiment with placement of bottle to create the sound (e.g. moving it higher or lower). Once they are able to consistently and successfully play their empty bottle, try measuring different amounts of water (you can use cup measurements for capacity or milliliters) and add the water into the bottle. Now have them play their bottle again. Ask students, "What did you notice this time when you played the bottle? What changed? If we add/remove water, what do you think will happen?" They can continue to explore to test out their predictions.
- 6. Have them record their observations in a chart. With a few students you could have them try to play a song when they have found the right amounts of water to play different sounds (notes or pitches).



### Math:

Have students measure out specific amounts of water—same (this will sound different in different sized bottles) or different—and graph or chart what they hear (high pitches, low pitches), with a focus on measurement and capacity (using cups or ml units). With younger students, you can explore ordering the size of the bottles or exploring how capacity of water changes depending on the bottle size or opening of the bottle.

### Music:

Have a discussion about the word "duet". Ask students what this means. Duet is when two people play or sing a different melody or song at the same time. Challenge students to play a song using a few bottles and have another student play along as a duet.

Try using different combinations of bottles to find different timbre (tone quality), just like the different instruments in the orchestra.

Students can also explore **dynamics** playing the bottle softly and loudly and you can introduce the music terms *piano* (soft) and *forte* (loud). Ask students, "What other instruments might this apply to in an orchestra?"

To learn more about the flute or another instrument called the dizi (a Chinese flute) here are some videos that students can watch from TVO Kids:

https://www.tvokids.com/school-age/backyard-beats-gr-1-3-arts/videos/flute

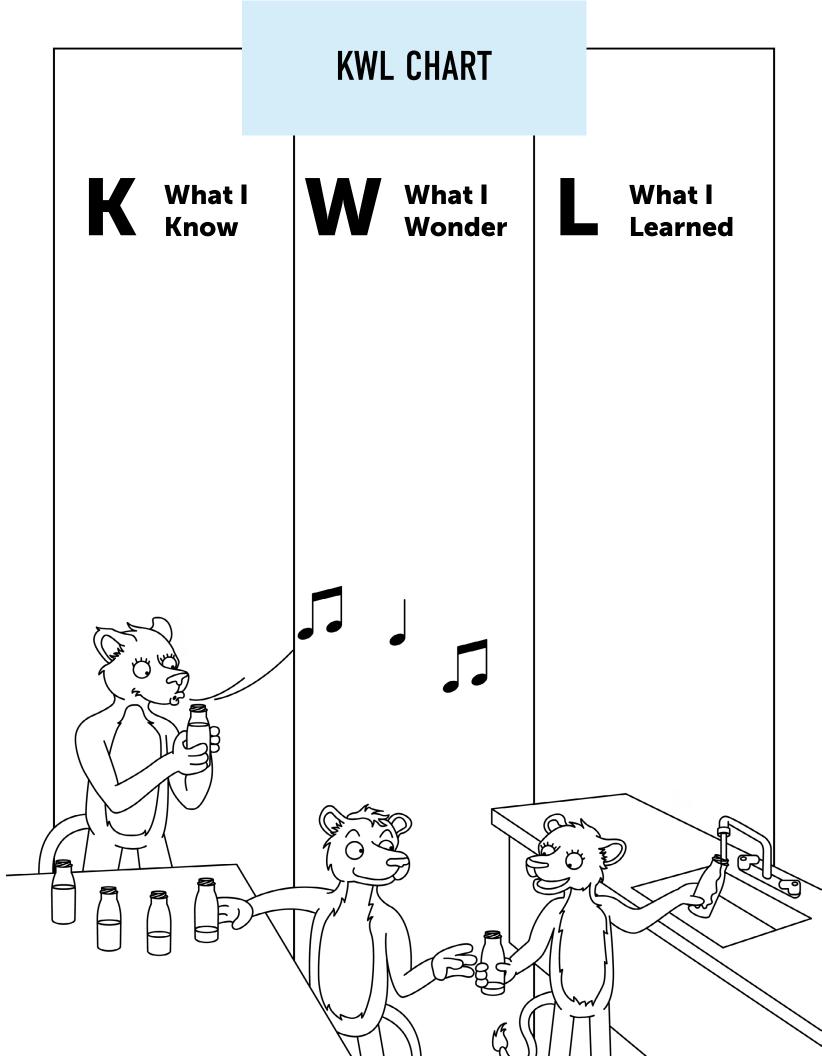
https://www.tvokids.com/school-age/backyard-beats-gr-1-3-arts/videos/dizi

### **Musical Excerpt:**

Prokofiev: "The Bird" from Peter and the Wolf

### **Literacy Connections:**

• The Magic Flute: An Opera by Mozart adapted by Kyra Teis.



### **TSOUND KIDS 2**



## How To Make

## a String Instrument

### **Learning Goals:**

- We will learn about a violin and what a string instrument sounds like.
- We will learn how string instruments make their notes, as well as how they are played.
- We will explore sounds and pitches and make a homemade string instrument.

Grades: K-4

### **Curriculum Connections:**

- Gr. 1-4 Math Measurement (Length)
- Gr. 1-4 Music Elements of music (Pitch, Dynamics, Timbre)
- Gr. 4 Science Sound

### **Overall Expectations:**

Exploring Fundamental Concepts -Elements of Music (e.g. Pitch, Timbre, Dynamics)

#### Materials:

- Small Empty Boxes (different sizes)
- Scissors
- Elastics (different sizes)
- Pencils

### THE LESSON

### Minds On:

Ask students to brainstorm the questions
"How are elastics used and what else can
we use them for?" You may wish to use a
graphic organizer or make a list.

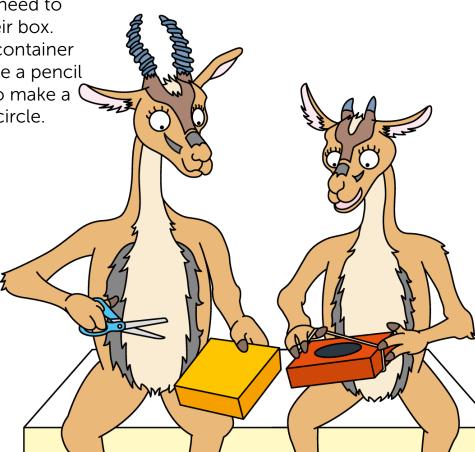
their box.

6. Finally, have them add a pencil at
the top end and at the bottom end
between the box and the elastics.

- 1. Watch the TSOUND KIDS video "How to Make a String Instrument at Home"
- 2. After the video, review with the students how a violin makes sound.
- 3. Ask students, "What happens when you pluck an elastic?" and "What do you think happens when you pluck an elastic that is around a box with a hole cut out?"
- 4. Direct students to create their string instrument by first using scissors to cut a small hole in the centre of their box. (Younger students may need to trace a small hole first on their box. They can use a small round container to trace a hole.) They can use a pencil to poke a hole in the circle to make a starting point to cut out the circle.

- 5. Next have them add elastics around their box.
- 6. Finally, have them add a pencil at the top end and at the bottom end between the box and the elastics. This will raise the elastics off of the box and allow them to vibrate more easily. Challenge the students again and ask them "Why do we hear the sound better when we prop the elastics with the pencils?"
- 7. Have students pluck the elastics to create notes on their instrument.

  They can now experiment and explore by adding more elastics or by using different elastics to create the sounds they want.



### Music

Students can use different-sized boxes or different material boxes (e.g. plastic, metal). Now ask the question, "How does the sound change when using a box of a different material? Is it louder or softer? Is it lower or higher?" This is an opportunity for you to focus the learning on the words dynamics and pitch, two elements of music. You can introduce forte (loud) and piano (soft) when discussing dynamics. Or for the element of pitch you can use "high" and "low".

For another crafty arts connection, watch this more advanced TVO Kids video about making your own cello.

https://www.tvokids.com/school-age/ backyard-beats-gr-1-3-arts/videos/cello



#### Science

Here's a video exploring what is sound:

What is Sound? - SchiShow Kids https://youtu.be/3-xKZKxXuu0

### Math

Explore what happens when students change the lengths of the elastic to make them all the same or all different. They can use a ruler to measure exactly how long or change the elastic lengths in specific increments to see how the sound changes.

### **Literacy Connections**

- Zin! Zin! Zin! A Violin by Lloyd Moss
- Ada's Violin by Susan Hood
- The Dance of the Violin by Kathy Stinson
- The Man with the Violin by Kathy Stinson



11



### **Learning Goals:**

- We will learn how the violin makes sound.
- We will learn the names of the parts of a violin.
- We will learn how to use a glass to create different sounds or pitches.
- We will learn about the word "vibration".

Grades: K-4

### **Curriculum Connections:**

- Gr. 1-4 Math Measurement (Capacity)
- Gr. 1-4 Music Elements of music (Pitch, Dynamics, Timbre)
- Gr. 3 Science Forces Causing Movement
- Gr. 4 Science Sound

### **Overall Expectations:**

Exploring Fundamental Concepts -Elements of Music (e.g. Pitch, Timbre, Dynamics)

#### Materials:

- Stemmed glassware
- Measuring cup
- Water
- Metal fork
- Glass container (e.g. Mason jar)

### THE LESSON

### Minds On:

Fill half a glass container with water. Use a metal fork and gently tap the glass. Ask students "What is happening? What do you hear? How is the sound being made?" You can repeat this step and have students take a closer look, paying attention to movement of the water. Empty out half of the water and tap the glass again. Ask students "What happened this time? What did you hear or notice? Why?"

- 1. Watch the TSOUND KIDS video "How to Make Glasses Sing"
- 2. Review how a violin makes sound. Discuss the word "vibration" specifically. An easy way to describe vibration to students is: a rapid back and forth motion.
- 3. Depending on the age of the students, you may wish to demonstrate the activity or have students try one at

- a time while the class watches. Fill the glasses with different amounts of water. You can use the measuring cup to measure out specific amounts.
- 4. Dip your finger in the water and gently rub around the rim of the glass. Listen carefully for the sound.
- 5. Repeat this again with a different glasses holding a different amount of water.
- 6. You can have students make a chart to compare how much water each glass has with the pitch (highness or lowness) of the sounds. Ask students to consider the question "Does more water make a higher or lower sound? Why?" How can you make a connection to this and sound vibration.



### **EXTENSIONS**

#### Music

Use a series of same-sized jars (e.g. jam or soup jars). Pour different amounts of water in each jar, changing the amounts of water using even increments. You can colour the water with food colouring so it is easier for the students to see. Now play the different jars with the tip of a fork. If you have 8 jars you should easily be able to explore and play a few songs.

### **Musical Excerpt:**

Rimsky-Korsakov: Flight of the Bumblebee

Harry Potter Theme performed by the Glass Duo

Another video to watch that discusses a violin, also known as the fiddle, is from Backyard Beats from TVO kids:

https://www.tvokids.com/school-age/backyard-beats-gr-1-3-arts/videos/fiddle

### **Literacy Connection**

- Little White Fish Hears Water Music by Guido Van Genechten
- The Story Orchestra: Four Seasons in One Day by Jessica Courtney-Tickle
- Lloyd Finds His Whalesong by Skylaar Amann

#### Science

Investigate the characteristics and properties of sound, with a focus on vibrations. You can explore more experiments that create sound vibrations. For example, put a piece of plastic wrap around a bowl, tighten it with an elastic band around the bowl so the plastic is completely taut. Then pour a handful of sugared sprinkles on top of the plastic wrap. Now hum close to the bowl and watch the sprinkles move. If it doesn't work, have students explore why (e.g. hum louder, use a different pitch, change the distance of the bowl to your mouth etc.)

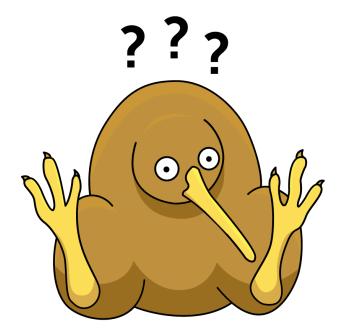
Alternatively, if you have hand drums in your classroom, put a few grains of rice on the head of the drum and gently tap the drum with a mallet. This can also work if you have a speaker you can put the drum nearby and watch to see if the grains of rice will bounce from the sound vibrations.

A few websites to check out with more lessons on sound vibrations are:

https://www.pbslearningmedia.org/ resource/phy03.sci.phys.howmove.lp\_ sound/sound-vibrations/

https://www.scienceworld.ca/resource/
sound-vibration-vibration/





How to Make

## a "Clarinet" Sound

### **Learning Goals:**

- We will learn what a clarinet sounds like and what a reed is.
- We will learn how a clarinet works.
- We will explore sounds and pitches when playing a homemade reed.

Grades: K-4

### **Curriculum Connections:**

- Gr. 1-4 Music Elements of music (Pitch, Timbre)
- Gr. 3 Science Forces Causing Movement
- Gr. 4 Science Sound

### **Overall Expectations:**

Exploring Fundamental Concepts - Elements of Music (e.g. Pitch, Timbre)

#### Materials:

- A thick piece of grass
- Plastic combs
- Wax paper rectangular in shape (The size will vary and depend on the length of the comb and double the width of the comb)
- A clarinet reed or picture of a reed

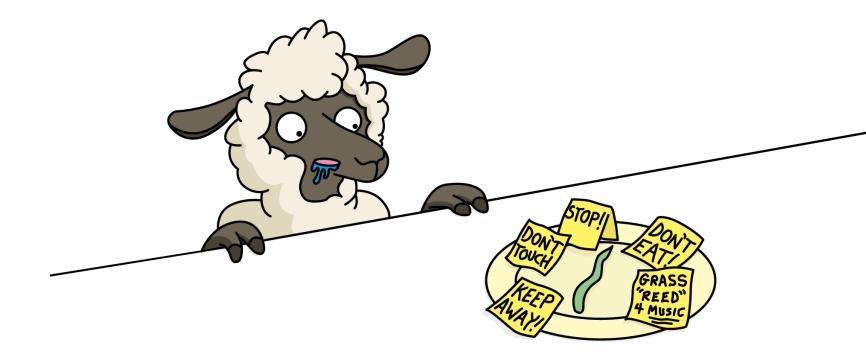
### THE LESSON

### Minds On:

Ask students "How do you think we can make a sound with a Reed?" Show them a reed or a picture of a reed. You may need to tell them it is used with some instruments.

- 1. Watch the TSOUND KIDS video "How to Make a Clarinet Sound"
- 2. Review how sound is created when playing a clarinet.
- 3. Ask students, "What happens to the reed when you blow on the mouthpiece of a clarinet?" (It vibrates, creating the sound.)

- 4. Have students go outside and pick a thick piece of grass. They can then put the piece of grass between their thumbs and try blowing to create a sound.
- 5. Next have them create the another sound effect using a piece of wax paper and comb. They will need to fold the wax paper in half and set the comb inside. Then they can use their voice to hum into the wax paper to create the buzzing sound.
- 6. Tell students to explore changing the pitch of their voice to create higher or lower notes to play a song. (See video for modelling of activity)



### **EXTENSIONS**

### Music

The following video introduces students to another woodwind instrument that uses a reed, bagpipes.

https://www.tvokids.com/school-age/ backyard-beats-gr-1-3-arts/videos/ **bagpipes** 

### **Musical Excerpt:**

George Gershwin: Rhapsody in Blue

Billy Eilish's Bad Guy played on a piece of grass



### Science

Have students come up with other materials that could be interchanged with the comb to create similar sounds. (e.g. popsicle stick, large paper clip, plastic fork, piece of cardboard) You could make a T-Chart to show which object worked or didn't work. Explore why some materials work and why others do not.

From here you can discuss how sound travels (sound can be absorbed, reflected or changed) and what materials make it easier for sound vibrations to occur.

### **Literacy Connection**

• Clarinet and Trumpet by Melanie Ellsworth

19

• The Remarkable Farkle McBride by John Lithgow



How to Make a Double Reed

## from a Plastic Straw

### **Learning Goals:**

- We will learn how sound is created when a bassoon is played.
- We will learn the names of the parts of the bassoon.
- We will learn how to make a reed using a drinking straw.
- We will explore sounds and pitches when playing our homemade reed.

Grades: K-4

### **Curriculum Connections:**

- Gr. 1-4 Math Measurement (Length)
- Gr. 1-4 Music Elements of music (Pitch, Dynamics, Timbre)
- Gr. 4 Science Sound

### Overall Expectations:

Exploring Fundamental Concepts -Elements of Music (e.g. Pitch, Timbre, Dynamics)

#### Materials:

- Disposable plastic drinking straws
- Scissors

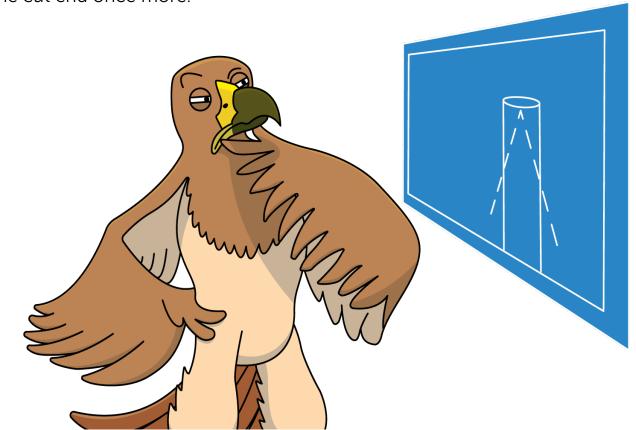
### THE LESSON

#### Minds On:

Show students a drinking straw and ask them, "How can we create sounds using this straw?" and "How would we change the sound (pitch) that comes out of the straw?" Brainstorm by making a list.

- 1. Watch the TSOUND KIDS video "How to Make a Double Reed from a Plastic Straw"
- 2. Review how to blow air to create sound when playing a bassoon.
- 3. Now give each student a straw. Have the students flatten one end of the straw with their fingers. Tell them to squish and push one end to flatten it.
- 4. Now have them make a small cut V shape to create an arrow on the flattened end of the straw. Have them flatten the cut end once more.

- 5. Finally have students put their lips just past the cut and blow into the straw to make a buzzing sound. If they are unsuccessful the first time have them flatten it once more before they try to blow into the straw again.
- 6. When they can play their straw reed successfully, you can give the students a second straw and see if they can create another reed that will make a higher or lower sound (pitch). Have them compare with classmates the different pitches each of their reeds makes.
- 7. Have students see if they can create different notes and play a song together using their reeds. They will need to work together to explore using the different sized straws to find the correct pitches.



### **EXTENSIONS**

### Music

Students could create another instrument using straws, a pan flute. You could research with the class where this instrument originates from and which culture uses it. To create the instrument, provide the students with 8 straws each and have them cut the straws to change the length (straight cuts across). Assign specific length by changing increments evenly, then have them tape the straws together in order of length (shortest to longest). Finally, students blow gently into the top of the straw (making the air travel across the top) to create the sound of the different pitches. This will take some

practice. See the website below for more thorough instructions on how to make the pan flute:

https://buggyandbuddy.com/ homemade-straw-pan-flutes/

This video from Backyard Beats from TVO kids introduces students to another Woodwind instrument that uses a reed, the saxophone.

https://www.tvokids.com/school-age/backyard-beats-gr-1-3-arts/videos/saxophone

### **Social Studies**

Have a discussion about sustainability. Talk to students about the use of the disposable drinking straw and what negative impact it has on the environment. Ask them to think about what we can do to change the way we live to a more sustainable way.

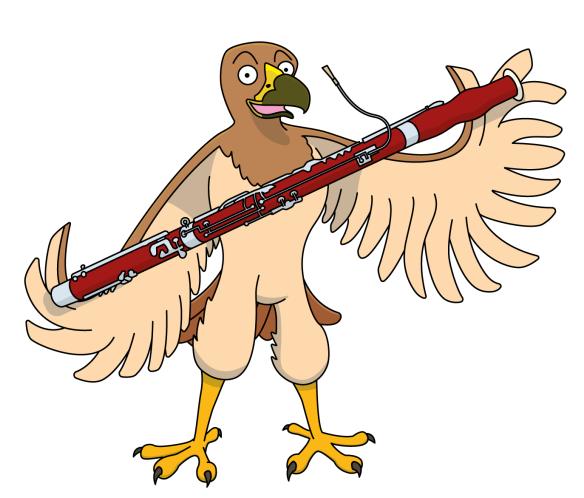
### **Musical Example**

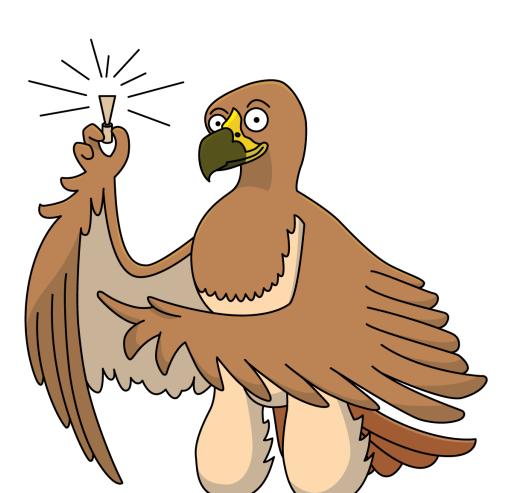
Prokofiev: "Grandfather" from Peter and the Wolf

Peter Bastian playing a straw like a double reed instrument

### **Literacy Connection**

• Peter and the Wolf by Sergei Prokofiev





**TSOUND KIDS 6** 



## How to Make

## Music with Your Family

### **Learning Goals:**

- We will learn about the double bass and how it is played.
- We will learn how to make music with recycled objects.
- We will explore sounds and pitches using different elements of music (e.g. Rhythm, Dynamics, Tempo, Pitch and Timbre).

Grades: K-4

### **Curriculum Connections:**

- Gr. 1-4 Music Elements of music (Rhythm, Pitch, Tempo, Dynamics, Timbre)
- Gr. 3 Science Forces Causing Movement
- Gr. 4 Science Sound

### Overall Expectations:

Exploring Fundamental Concepts -Elements of Music (e.g. Pitch, Timbre, Dynamics)

#### Materials:

 Recycled items that will make different sounds (e.g. pots, spoons, pasta box, wooden sticks). Try to find objects made of different materials (e.g. metal, cardboard, wood).

### THE LESSON

### Minds On:

Have students follow the you while you clap. Start softly, then get louder. Clap slowly, then go faster. You can do the same activity by tapping a surface like your desk and again move through all the elements. Ask students the following question after the activity, "How did my movements change? What did we use to make the different sounds?"

#### Task:

- 1. Watch the TSOUND KIDS video "How to Make Music with Your Family"
- 2. Start with a warm-up activity. Have students sit in a circle and pass a sound around the circle. (e.g. one clap, pat clap snap etc.) Change the speed to make it fast (*presto*) or slow (*largo*) and introduce the element of tempo. You can even reverse the direction of where the sound is being passed (clockwise or counterclockwise).
- 3. Next, try this activity again using a sound produced with your voice (e.g. Shhh). This time pass the sound around the circle. Have students try first with their eyes open, then challenge them to do it again with their eyes closed.

4. Introduce the element of **rhythm**. An easy way to explain this to students is the sounds they hear in a word (e.g. syllables). Using their name, have each student clap the rhythm of their name while saying it. (e.g. Timothy – clap 3 times Tim-o-thy). The other students can clap along after the student has modelled their name. Again, play this call and response activity and change the elements, for example the tempo to make it faster or slower. Next change the element of music dynamics, saying the rhythm of the student's name louder or softer.



THE LESSON

### **EXTENSIONS**

- 5. In small groups you can have them try putting their names together to create a short rhythmic song. (e.g. in the video they sing "Tim-o-thy, Kim, Jamie, Se-ba-sti-en).
- 6. Finally, students can transfer their rhythms using the found objects to play their rhythmic song. They will explore on their found instrument, playing one after another or at the same time, again changing dynamics or tempo while playing. (The changing of elements will need to be teacher directed for younger students.)
- 7. If you have pitched instruments in your classroom, you can have students transfer their rhythm to an bells or Boomwhackers. This is again another opportunity to talk about the musical elements of pitch and how it makes the rhythm into a melody or song.



Discuss the word pitch (high sounds and low sounds). This would be a great opportunity to talk about Solfège or adding notes to each pitch (e.g. do, re, mi). A great visual connection to this would be to show the students "Do-Re-Mi" song from the musical *The Sound of* Music.

To learn more about the electric bass (another bass instrument) watch the following Backyard Beats TVO video.

https://www.tvokids.com/school-age/ backyard-beats-gr-1-3-arts/videos/bass

To learn more about pitch, watch the following Backyard Beats TVO video:

27

https://www.tvokids.com/school-age/ backyard-beats-gr-1-3-arts/videos/ xylophone

### **Musical Example**

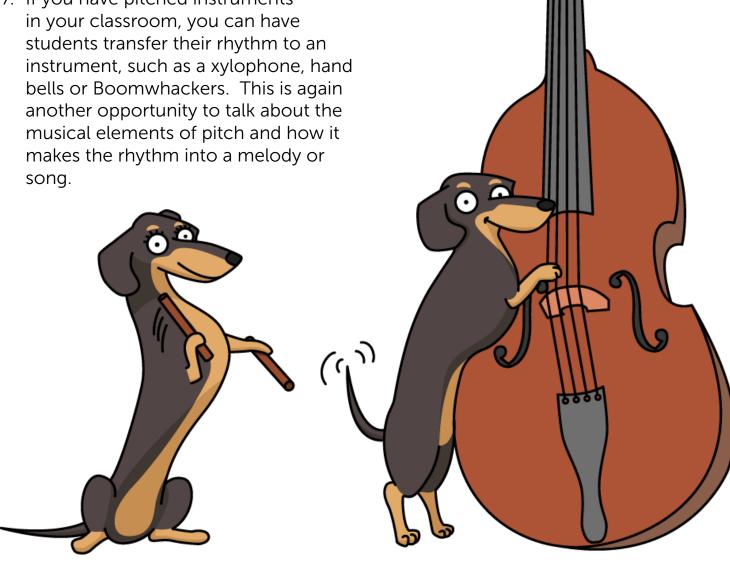
Saint-Saëns: "The Elephant" from Carnival of the Animals

### **Literacy Connections**

• Double Bass Blues by Andrea J. Loney

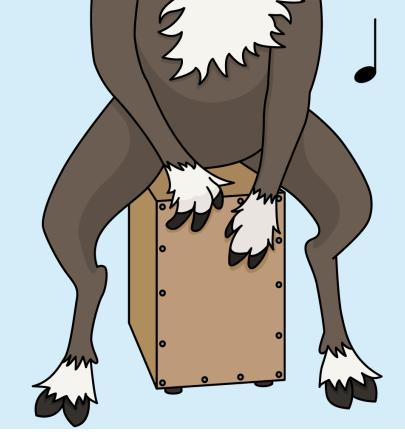
### Language

Explore homophones, words that sound the same and are spelled differently (e.g. bass and base) and homonyms, words that are spelled the same, but have different meanings (e.g. bass the instrument and bass the fish).





## TSOUND KIDS 7 Part 1



## How to Play

## a Cardboard Box

### **Learning Goals:**

- We will learn how sound is created when we play a beat or rhythms on a box drum.
- We will learn about percussion instruments (e.g. a drum cajón)
- We will explore sounds using different elements of music, (Beat, Rhythm, Dynamics and Tempo), while playing a homemade drum.

Grades: K-4

### **Curriculum Connections:**

- Gr. 1-4 Music Elements of music (Beat,Rhythm, Dynamics, Tempo)
- Gr. 4 Science Sound

### **Overall Expectations:**

Exploring Fundamental Concepts -Elements of Music (e.g. Beat, Rhythm, Tempo, Dynamics)

#### Materials:

- Large empty cardboard box
- Aluminum foil
- Large elastics or string
- Masking tape
- Scissors

### THE LESSON

### Minds On:

Give students a large cardboard box and ask them "How can we make sound using this box?" Brainstorm a few ways.

- 1. Watch the TSOUND KIDS video

  "How to Play a Cardboard Box Like a
  Percussion Instrument"
- 2. Review how to keep a beat on their box drum, cajón (pronounced "kahone").
- 3. Have students create their drum using a large cardboard box. They can trace and cut out a hole at the back of the box (younger students will need help with this). Then have them attach rubber bands or string around the top of the box. Slip the aluminum foil between the elastic or strings. Explain to them that this becomes the snare of the drum.
- 4. Now have students practise keeping a steady beat on their drum. Next have them use two hands to keep the beat. Then have them add a pattern as they play. Have students explore their sounds that they create. Perhaps encourage them to play the first beat louder and the next 3 beats softer. They can change the elements as they play, (e.g. tempo playing faster or slower and dynamics playing louder or softer).



30

### **EXTENSIONS**

### Music

To learn more about drums, check out these videos from TVO kids. The first one is about the Indigenous hand drum, the second one is about the djembe, and the third is about a Persian drum called daf.

https://www.tvokids.com/school-age/backyard-beats-gr-1-3-arts/videos/indigenous-hand-drum

https://www.tvokids.com/school-age/backyard-beats-gr-1-3-arts/videos/diembe

https://www.tvokids.com/school-age/backyard-beats-gr-1-3-arts/videos/daf

### **Musical Excerpt**

Cajón Solo with Extra Groove by Ross McCallum:

https://youtu.be/8T6hgMDfc5k

### **Social Studies**

Explore the significance of the drum for First Nations. What were they used for? How were they important? What other cultures use drums? For example, in Japanese culture they have taiko drumming and in West Africa they have the talking drum. Are they used for the same purpose or other purposes? (e.g. celebrations, religious ceremonies)

### **Literacy Connections**

• Drum Dream Girl by Margarita Engle

## TSOUND KIDS 7 Part 2



## **Homemade Drum Set**

### **Learning Goals:**

- We will learn how to put together a drum set using recycled items.
- We will learn how to play a homemade drum set using a beat and different rhythms.

### Grades: K-4

#### **Curriculum Connections:**

- Gr. 1-4 Music Elements of music (Beat, Rhythm, Tempo)
- Gr. 3 Science Forces Causing Movement
- Gr. 4 Science Sound

### **Overall Expectations:**

Exploring Fundamental Concepts - Elements of Music (e.g. Beat, Rhythm, Tempo)

#### Materials:

- Empty plastic containers of varying sizes (e.g., Tupperware, plastic bowls or cups, clean juice or oil bottles)
- Masking tape
- Wooden sticks (e.g. chopsticks wooden or plastic, wooden dowels)
- Plastic spoons
- Plastic coat hanger
- Cardboard box
- Desk/table

THE LESSON

### THE LESSON

33

### Minds On:

Show students a picture of a drum set. Have them talk about the different sounds the drum set might make. Ask them to think about the materials that make up the drum set. (e.g. metal on cymbals) They can make a list.

### Task:

- 1. Watch the TSOUND KIDS video "How to Make and Play a Homemade Drum Set"
- 2. Review what students will need to create a drum set using recycled items.
- 3. Using their desk or a small table, students can tape down their recycled items choosing a few items that will create different sounds when played with their mallet (wooden stick).

4. To create the bass pedal, they will need a plastic coat hanger and cardboard box. Cut the cardboard box so it is 4-5 inches in height. Leave one short side (width of the box longer). This is where the pedal (coat hanger) will be, if unsure watch the video for the model. Punch two holes one on either side of the length of the box around the same spot. The elastic should then attach to the box and the coat hanger. It is helpful if your coat hanger has extra hooks on the inside of the triangle for the elastics. When completed, the coat hanger should be sitting on the outside of the box. For additional reinforcement, add another piece of cardboard inside the cardboard box and fold it up towards the coat hanger. To play the bass, you will need to put this against a large plastic box so the hanger can push against it to make the bass sound. (for reference see model in video)



#### Music

To learn more about a drum kit, watch the following video from TVO kids:

https://www.tvokids.com/school-age/ backyard-beats-gr-1-3-arts/videos/ drum-kit

#### Science

Explore other uses of recycled materials. Ask students to build structures using the recycled items and compare the strength • Max Found Two Sticks by Brian of each structure. (Gr. 3 Understanding Structures and Mechanisms) Ask students • Jasmine Toguchi, Drummer Girl by to consider the following questions: Which materials are stronger for building a structure? Why? Which materials are not good for building a structure? Why? What can we do to stabilize our structures?

### **Social Studies**

With a focus on the environment, have students do an inquiry on the importance of recycling and how it helps our environment. With younger students the focus could be on services in the community and the responsibilities of these people.

### **Literacy Connections**

- Drum City by Thea Guidone
- Pinkeney
- Debbi Michiko Florence

### **ACKNOWLEDGEMENTS**

The Toronto Symphony Orchestra gratefully acknowledges the following donors for their generous support. Together, they are enabling tens of thousands of young people to participate in TSO education programs this year:

- William R. & Shirley Beatty Charitable Foundation
- Boiler Inspection Company
- Catherine and Maxwell Meighen Foundation
- Crinoline Foundation
- Down Family Foundation
- Fabricland
- Gert Wharton Endowment Fund
- Guild Electric Charitable Foundation
- Hal Jackman Foundation
- Hope Charitable Foundation Jarvis & Associates
- J.P. Bickell Foundation
- Marjorie and Joseph Wright Memorial Foundation

- Max and Beatrice Wolfe Foundation
- Murray & Susan Armitage Foundation
- MZ Media/Classical FM 96.3
- Norman and Margaret Jewison Foundation
- Patrick and Freda Hart Green Foundation
- Phyllis & Ab Flatt Family Endowment
- Powis Family Foundation
- Sleeman Breweries
- Thomas, Large & Singer
- Toronto Musicians' Association
- Toronto Symphony Volunteer Committee
- William Birchall Foundation





du Canada





**FUNDED BY** THE CITY OF **TORONTO** 

### **Image Credits**

Illustrations by Pierre Rivard. Daniel Bartholomew-Poyser portrait by Riley Smith.



### Have a question?

Call: 416.598.5386

(Mon-Fri, 9:00am-5:00pm)

Email: schoolconcerts@TSO.CA

For more information: TSO.CA/Education