OREGON SYMPHONY®

2024/25

EDUCATION AND COMMUNITY ENGAGEMENT

Adventures into Sound

Kinderkonzerts
Teacher's Guide
Grades K–2

Woodwinds: Charting a Changing Course

Percussion: Off the Beatin' Path

Strings: Once Upon a Tune

Brass: Blast Off!

Welcome

How To Use This Guide

This guide is designed to accompany the 2024/25 series of Kinderkonzerts. Divided into four main sections, one for each family of instruments, this guide explores basic elements and principles of music through active listening and inquiry while introducing the instrument families of the orchestra. Each section explores concepts that will be addressed in the corresponding concert. We have designed the lessons to be adaptable to the time and materials available in your classroom setting, providing groups of activities that can be best explored over the course of several days for up to 15 minutes per class. We encourage you to adapt each lesson to fit your teaching style and specific student needs.

Each section includes five components: 1) lessons, 2) listening extensions, 3) instrument introductions, 4) sing-a-long songs which will be performed at each corresponding kinderkonzert (we invite all to sing along with Pam, our narrator!), and 5) a student take-home sheet as well as sheets illustrating the members of the orchestra family.

Overall guide objective

Students will:

- Explore basic elements and principles of music through active listening, inquiry and live performances by the four families of instruments.

Guide contents

Companion YouTube videos

1 Full orchestra – Bernstein's Overture to Candide:
https://youtu.be/Gk69dKounD8?si=MsFxbM4L9ehRev85&t=18

2 Strings – Tchaikovsky's Serenade for Strings, Finale:
https://youtu.be/M2ZU-1EyVOw?si=yNjBFw02v9hw0DQI&t=1455

3 Low pitched sounds – excerpt, Gliere's Russian Sailor Dance:
https://youtu.be/V8jbbmfDmDo?si=MjnHFZ500v8ptq2U&t=22

4 High pitched sounds/soft sounds – excerpt, Gliere's Russian Sailor Dance:
https://youtu.be/V8jbbmfDmDo?si=NOUdVU7FkqVyP-tz&t=82

5 Loud sounds – excerpt, Gliere's Russian Sailor Dance:
https://youtu.be/V8jbbmfDmDo?si=gvIH6-fqXr2bELu7&t=100

6 Woodwinds – excerpt, Tchaikovsky's Symphony No. 4, Scherzo:
https://youtu.be/V2VkTZIUKe0?si=Co57tFh9z6nz5nK7&t=100

7 Brass – Gabrieli's Canzon Septimi Toni No. 2:
https://youtu.be/1l-N390KDYA?si=3i01f7gWQnPp-209&t=8

8 Percussion – Britten's Young Person's Guide to the Orchestra
(Percussion excerpt): https://youtu.be/b7LGVqWD5Is?si=ErGZRrn-PJYQD4fp

BONUS VIDEOS - will be performed in Kinderkonzerts

9 Strings – Gershwin's Lullaby: https://youtu.be/6uJqgiTiq7s?si=uHn8GaZAvq7hwmyM

10 Strings – Rossini's Willliam Tell Overture:
https://www.youtube.com/watch?v=F1uWkzkLi2c

11 Woodwinds – Rimsky-Korsakov's Flight of the Bumblebee:
https://www.youtube.com/watch?v=cWmq2biAwOo

12 Woodwinds – Johann Strauss' Tales from the Vienna Woods:
https://www.youtube.com/watch?v=n7pbbadZEqA

13 Brass – Richard Strauss' Also sprach Zarathustra:
https://www.youtube.com/watch?v=6YyUTS0zpI0

14 Brass – Ellington, "It Don't Mean a Thing":
https://youtu.be/fFYxrgItFVk?si=G8qjb-qnJs5pxGr7

The Oregon Symphony believes that music is an essential and equal part of the total school curriculum. We hope that you will take full advantage of this guide and YouTube playlist so that your students can in turn be knowledgeable and eager participants in the culture of their city, state and the world. Please email us at educate@orsymphony.org if you have questions or wish to share your experiences in preparing your students for the Kinderkonzerts.

Annissa Bolder, M.M. Ed., Director of Education & Community Engagement

Join Us!

Kinderkonzert 2024/25 Schedule

Woodwinds: *Charting a Changing Course*	**Monday, October 7** 9:30 am 10:30 am 11:30 am **Location: Lincoln St. Elementary**	**Tuesday, October 8** 9:30 am 10:30 am 11:30 am **Location: Sacramento Elementary**	**Wednesday, October 9** 9:15 am 10:15 am 11:15 am **Location: Faubion School**
Percussion: *Off the Beatin' Path*	**Monday, December 2** 9:30 am 10:30 am 11:30 am **Location: Lincoln St. Elementary**	**Tuesday, December 3** 9:15 am 10:15 am 11:15 am **Location: Faubion School**	**Wednesday, December 4** 9:30 am 10:30 am 11:30 am **Location: Sacramento Elementary**
Strings: *Once Upon a Tune*	**Monday, March 17** 9:30 am 10:30 am 11:30 am **Location: Lincoln St. Elementary**	**Tuesday, March 18** 9:15 am 10:15 am 11:15 am **Location: Faubion School**	**Wednesday, March 19** 9:30 am 10:30 am 11:30 am **Location: Sacramento Elementary**
Brass: *Blast Off!*	**Monday, May 19** 9:30 am 10:30 am 11:30 am **Location: Lincoln St. Elementary**	**Tuesday, May 20** 9:15 am 10:15 am 11:15 am **Location: Faubion School**	**Wednesday, May 21** 9:30 am 10:30 am 11:30 am **Location: Sacramento Elementary**

Location Information:

Lincoln St. Elementary *(Gym)*
801 NE Lincoln St.
Hillsboro

Faubion School *(Gym)*
2930 NE Dekum St.
Portland

Sacramento Elementary *(Multi-Purpose Room)*
11400 NE Sacramento St.
Portland

Welcome

National Standards

The Oregon Symphony has an ongoing commitment to support the National Standards for Music Education.

1. Singing, alone and with others, a varied repertoire of music.
2. Performing on instruments, alone and with others, a varied repertoire of music.
3. Improvising melodies, variations and accompaniments.
4. Composing and arranging music within specific guidelines.
5. Reading and notating music.
6. Listening to, analyzing and describing music.
7. Evaluating music and music performances.
8. Understanding relationships between music, the other arts and disciplines outside the arts.
9. Understanding music in relation to history and culture.

A comprehensive guide and resources pertaining to the National Standards can be found at http://www.menc.org/s/general_music

Oregon Content Standards

Oregon Symphony Kinderkonzerts support the following Common Curricular Goals of the Oregon Content Standards as outlined below:

Visual and Performing Arts: Aesthetics amd Art Criticism

- Recognize artistic elements in works of art.
- Respond to works of art, giving reasons for preference.

Visual and Performing Arts: Historical and Cultural Perspectives

- Relate works of art from various time periods and cultures to each other.

Visual and Performing Arts: Create, Present, Perform

- Apply artistic elements and technical skills to create, present and/or perform works of art for a variety of audiences and purposes.
- Communicate verbally and in writing about one's own artwork.

English Language Arts: Reading

- Listen to, read and understand a wide variety of informational and narrative text across the subject areas at school and on own, applying comprehension strategies as needed.
- Increase word knowledge through systematic vocabulary development; verify the meaning of new words and use those words accurately across subject areas.

English Language Arts: Writing

- Communicate supported ideas across the subject areas, including relevant examples, facts, anecdotes and details appropriate to audience and purpose that engage reader interest.

English Language Arts: Speaking and Listening

- Listen critically and respond appropriately across subject areas.

Science: Physical Science

- Matter: Understand structure and properties of matter.
- Energy: Understand energy, its transformations and interactions with matter.

Access the Oregon Standards at: https://www.oregon.gov/ode/educator-resources/standards/Pages/default.aspx

Overview

Kinderkonzert Series

Featuring small groups of Oregon Symphony musicians, Kinderkonzerts offer developmentally appropriate learning experiences that encourage active participation. We believe that music is an essential and equal part of the total school curriculum and, while our concerts and accompanying Teacher's Guide cannot replace sequential arts education curriculum in the school, they are designed to help schools meet and exceed the Oregon Department of Education's Arts Content Standards curriculum objectives and deepen your work in the classroom.

Adventures Into Sound

Woodwinds: *Charting a changing course*

Explore the sounds of the world as our woodwind quintet takes us on a journey into the changes we find in nature and music. Our adventure takes us on an expedition that compares the changes in music with natural changes like the four seasons, weather, and animals.

Concepts: ***Identifying the woodwinds; how woodwinds make sounds***

Percussion: *Off the beatin' path*

Learning about rhythm has never been so much fun! Everyone will be movin' and groovin' to the beat as dance and rhythm are used to get their toes tappin' and fingers snappin! There will be a whole lot of countin' going on as kids explore the world of percussion instruments.

Concept: ***Indentifying percussion instruments; rhythm and beat***

Strings: *Once upon a tune*

Music breathes life into classic children's stories. We'll explore how music enhances stories such as "The Tortoise and the Hare" and explore the string instruments in our version of "Snow White and the String Quartet." This is sure to be interactive fun for everyone!

Concepts: ***Identifying the stringed instruments; tempo, largo, allegro***

Brass: *Blast off!*

Travel out of this world with the brass instruments as we explore the stars and planets looking for alien life. Finding our way back home to Earth may be a challenge, but the musical clues that we discover should point us in the right direction!

Concepts: ***Identifying the brass instruments; how brass make sounds; dynamics, pulse***

Concert Expectations

The day of your Kinderkonzert experience is sure to be a fun and exciting one. Knowing what to expect will help you and your students prepare for the concert and will make the experience the best it can be. Listed below are a few logistical details along with some basic expectations that we have of concert attendees.

Reservations & busing instructions

Register to attend Kinderkonzerts at our website: www.orsymphony.org/kinderkonzerts. After registering, you will receive order confirmation via email. Two weeks prior to the Kinderkonzert, you will receive information by email detailing specific bus, parking, and entrance information at your Kinderkonzert location, as well as reminder of date/time/location of the performance. Payment for all Oregon Symphony Education concerts is due by June 15, 2025.

Arrival & concert etiquette

Please arrive 15 minutes before the concert – we will start promptly and don't want you to miss a thing! Seating is first-come-first-served, but we like to let our youngest (and usually shortest) audience members sit in the front. Our volunteer greeters will seat you upon arrival.

Please take a few moments before the concert to discuss with your students and chaperones your expectations for their concert behavior. Kinderkonzerts are designed to be fun and interactive. We encourage kids to move to the music and show that they are having a good time by singing and clapping along at appropriate times. Please remind your students to respect fellow audience members by refraining from conversation during the concert, just as they would be asked to behave in an assembly at their school. The best way to show the musicians and our narrator that you're enjoying the concert is by listening quietly during the performance and clapping enthusiastically after each piece.

Sound awareness activity/resources

Sound Awareness

We are constantly surrounded by sound, but rarely do we truly listen to what we hear. Listening to a 30-minute concert may be a new and unusual experience for many of your students. Essential to the development of deep listening skills is the acquisition of sound awareness. Following are some suggested strategies for developing active listening skills in our youngest listeners. These exercises will be helpful prior to any of the following lessons as you introduce the instruments and musical concepts found in this Teacher's Guide.

Goal

Students will develop active listening skills.

Instructional objectives

Students will:

- Identify and describe environmental sounds; and
- Identify and describe various sounds played on a variety of musical instruments.

Instructional activities

Activity One: Environmental Sounds

- Turn off the classroom lights and have students close their eyes.
- Have students spend one full minute listening to environmental sounds.
- Elicit responses from students as to what sounds they heard. Create a word bank using all student responses.
- After an initial list has been created, go back to each sound on the list and ask students to describe their sound further. Add these descriptions to each sound listed.
- Refer back to this word bank throughout the year, adding sounds and descriptions to increase sound awareness.

Activity Two: Instrument Families

- Using the companion YouTube list on the first page of this Guide, find the track that corresponds to the instrument family that your class is studying for this Kinderkonzert.
- Follow the same procedure as listed in Activity One asking students to identify and describe the sounds made by the featured instrument(s).

Resources

Oregon Symphony – Learn about the instruments of the orchestra and the musicians that play them! www.orsymphony.org/learning-community/instruments

Dallas Symphony for Kids – A national award-winning site to get youngsters (and their teachers) more involved in classical music. Games, music and classroom activities. www.dsokids.com

New York Philharmonic for Kids: "Kidzone" – Interactive games, music, classroom activities, information about classical music and fun facts about music composition. www.nyphil.org/education/digital-resources

Sphinx Kids – The Sphinx organization is dedicated to building diversity in classical music. Their web site for kids includes games, videos and music, with a special focus on minority composers and musicians. www.sphinxkids.org

San Francisco's Symphony for Kids – www.sfskids.org

Community Music Center – In partnership with the Portland Parks & Rec, CMC has been a popular and affordable place for lessons and concerts since 1955. www.communitymusiccenter.org

Music Workshop – Creates free-of-charge, K–8 online music curriculum. www.musicworkshopedu.org

Lessons

Lesson 1: Pitch – *Explore the Woodwinds and Brass families alongside this lesson*

Length

One or two class periods

Subjects

Language arts, music, science

Preparation/materials

- Explore the woodwind and brass families on the interactive map of the orchestra at www.orsymphony.org/education-community/instruments
- Computer, share videos 3 & 4 from Companion YouTube list (p. 1) to demonstrate low and high-pitched sounds. Share videos 6, 11, and 12 to listen to Woodwind instruments. Share videos 7, 13, and 14 to listen to Brass instruments.
- Rulers (or paint stirring sticks, one per student), scissors, straws (thick and thin), and paper for creating funnels
- Xylophone (or Orff instrument)
- Woodwind reed, brass mouthpiece

Instructional objectives

Students will:

- Listen to a xylophone or YouTube excerpt with high and low sounds;
- Define pitch;
- Explore pitch using straw clarinets (see page 17);
- Develop and test a rule about pitch using rulers or objects on the edge of their desks.

Instructional activities

1. Ask the children to think about their home. "Can you think of any objects that move to make sounds?" [Bells, whistles, fans.] "What is the special science word we use for the idea that something is moving back and forth?" [Vibration.]
2. Play a note on the xylophone. Ask: "What is vibrating here?" [The bar is vibrating.] Ask children to listen to the sounds you make with the xylophone. Ask them to describe what they have heard. "What was the same about the sounds? What was different?"
3. If children haven't used the words high and low to describe the sounds, play a high note and a low note on the xylophone. Ask: "Which sound is higher? Lower?" Explain that the idea we are using when we say high or low is called "pitch." Perhaps they have heard a pitch pipe used in music class to give everyone the note.
4. Explain that you would like them to investigate another way change pitch. Show them a straw clarinet (see page 17). Play the straw clarinet. Explain that you would like them to make a "clarinet." Explain and model how to make the "clarinet". Remind them to be careful with these pointed objects.
5. After children have made "clarinets," quiet them and ask them to listen carefully as several children play their instruments one at a time. Ask them to describe the differences in pitch between the "clarinets." [One is higher; one is lower.] Then ask each child to make another "clarinet" that is different in pitch than their first one. Ask children to write/share how to change pitches on their "clarinets" in their student/class journal. [Look for vibration and pitch) in their responses.]
6. Take time to discuss the methods that the children used. Allow them to explain to you and to one another how they changed the pitch of their instruments.
7. Discuss with the children the correlation between their straw clarinets and woodwind instruments. Review/introduce the different means by which woodwinds instrument create sound [flute blows across their head joint, clarinet vibrates with a single reed on a mouthpiece, and the oboe and bassoon use a double reed to create their vibrations.] Visit www.orsymphony.org/education-community/instruments/woodwinds and watch videos 6, 11, and 12 from the Companion Youtube videos list to further explore the woodwind family.
8. Extend your correlation by introducing the brass family. Introduce/review that brass instruments create sound by "buzzing" a mouthpiece. Visit www.orsymphony.org/education-community/instruments/brass and watch videos 7, 13, and 14 from the Companion YouTube videos list to further explore the brass family.

Assessment

Ask children to twang rulers or paint stirrers on desk edges. Ask them to show how they would vary the pitch of the sound [lengthen/shorten overhang of ruler on desk surface]. They should explain how changing the pitch of the paint stirrer is like changing the pitch of the straws. [Look for the terms **high** and **low** in their explanations.]

Lessons

Lesson 2: Loud or soft (Dynamics)

Length

One class period

Subjects

Language arts, music, science

Preparation/materials

- Straw clarinets, paint stirrers
- Computer; videos 4 & 5 from Companion YouTube list

Instructional objectives

Students will:

- Classify sounds as being high or low pitched;
- Listen for loud and soft sounds;
- Classify sounds as loud or soft;
- Define volume;
- Tap pencils on desks, varying the volume;
- Use one of their instruments (straw clarinets, paint stirrers) to vary volume;
- Write a sentence or two explaining how to vary volume.

Instructional activites

1. Ask children to sit quietly and listen for sounds in or near the classroom. List some on the board. Then ask children to classify these sounds as high or low pitched.
2. Ask children if "pitch" is the only characteristic of sound that can be changed? If children incorrectly say "yes," give some examples: A calm voice and an angry voice, a toy train horn and a real train horn.
3. Ask children to use their pencils to tap softly on their desks. Then have them tap loudly. Ask: "What did you have to do to change the volume?" [Tapped harder to make a louder noise.]
4. Ask children to work in pairs to investigate another way to change volume, using either the straw clarinets or the paint stirrers. For any instrument they choose, they should write down/share three things: the definition of volume, the name of the object they used, and how they changed the volume.
5. Provide children time to investigate their sounds. If space permits, you may wish to have some groups work in the hall or use a larger space like the gymnasium to avoid disturbing nearby classes.
6. Ask pairs to report their results back for each instrument. "What was the same about the ways they changed the volume?" [Making a sound louder required more force; a stronger breath, a harder pluck, or a strong thwap on the stirrer.] Discuss answers to questions. Question #1: "What makes a sound louder?" [More force, more wind, a stronger pluck, or pound. Answers to Questions #2 and #3 will vary.]
7. Ask: "Can loud sounds be dangerous?" Confirm that long-term exposure to loud sounds can hurt people's hearing. Ask: "Have you ever seen people protecting their ears from loud sounds?" [Examples include airport tarmac workers, lawn care workers, and carpenters].

Assessment

Given a simple instrument, children should be able to make and identify loud or soft sounds.

Lessons

Lesson 3: Sounds that Match – *Explore the Percussion family alongside this lesson*

Length

One class period

Subjects

Language arts, music, science

Preparation/materials

- Explore the percussion family on the interactive map of the orchestra at www.orsymphony.org/education-community/instruments/percussion
- Rubber bands
- Computer, share video 8 from Companion YouTube list (p. 1) to listen to Percussion instruments
- Tuning fork
- Glass baking pan or pie pan
- Overhead projector
- Small opaque containers (i.e. small paper bags or opaque Tupperware or other container), at least 8 containers per group (adjust numbers based on your needs)
- Variety of small objects for containers (rice, beans, bells, buttons, erasers, marbles,paper clips, beads, coins, screws, nuts, washers, centimeter cubes, etc.)
- Make sets of 8 containers for each group with pairs of each object. Label 4 of each set **A, B, C,** etc. Label the other 4 of the set **1, 2, 3,** etc. Record your pairs of objects so you know what is inside each container (For example: **A** & **4** = containers with buttons).

Instructional objectives

Students will:

- Define "vibration" and "sound wave"
- See demonstrations of a tuning fork in water, causing the water to ripple and demonstrate a sound wave in water
- Match sounds from bags or cannisters with common objects inside
- Choose one canister to describe what vibrated to make sound

Instructional plan

1. Ask children to recall the objects they know of at home that **move** to make sound. Add some ideas and a picture to the bulletin board.
2. Explain that a word scientists use to describe a fast back and forth movement, or *oscillation,* is **vibration**. Move your hand back and forth quickly to illustrate this idea. Show them how they can make a rubber band make sound by pulling it taut and plucking it. The rubber band moves back and forth quickly (oscillates) when you pluck it, creating a vibration. Then strike the tuning fork and place the end on a table. "Listen carefully. Can you hear the sound?" Repeat until all have heard the sound of the tuning fork.
3. Ask the children if the tuning fork is vibrating? Explain that you will put the tuning fork into water. Ask for predictions: "Is the tuning fork vibrating when it makes sound?"
4. Again strike the tuning fork. Put the tuning fork into the water in the pan. Ask: "Is the tuning fork vibrating when it makes sound?" Alternate sounding the tuning fork on the table and showing the ripples of vibrations when sounding the tuning fork and then putting it into water. Put glass pan filled with water on overhead projector and place vibrating tuning fork in the water. Watch the ripples of the vibrations in the water!
5. Share with the children that sound waves are vibrations in air or water that our ears and brain interpret as sound.
6. Explain to children that you would like them to work in groups to investigate another way to vibrate objects to make sound waves. Show them one of the containers. Shake it. Ask: "Is something vibrating, or moving back and forth inside? What might be making this sound?" Explain that you would like them to find matches between the two sets of containers without opening the containers. They should match each lettered container with one numbered container by the sound it makes while shaken.
7. Discuss with the children the correlation between their containers they are shaking and percussion instruments. Review/introduce the different means by which percussion instruments create sound [anything you can strike, scrape, or shake.]

Visit the interactive map of the orchestra at www.orsymphony.org/education-community/instruments/percussion to further explore the percussion family.

Assessment

In the final question, children should be able to explain and demonstrate sound as the result of a movement or a vibration.

Lessons

Lesson 4: Toys that make noise

Length

One class period

Subjects

Language arts, music, science

Preparation/materials

- Books (several per group)
- Cups (paper or plastic, one per group)
- Rubber bands (large, one per group)
- Toys that make noise (musical instruments such as kazoos, drums, horns, castanets, cymbals, recorders, toy guitars, bells, wind-up toys, rattles, pair of blocks, etc.)

Instructional objectives

Students will:

- Observe sounds that are made by toys;
- Experiment to make their own sounds with familiar materials.

Instructional plan

Make a class chart as shown below:

Object that made sound	Description of sound	What was moving?

Create a word bank of sound words (See step 2) on the board or near the chart to help children describe sounds. Gather cups, rubber bands that fit around the cups, and a book.

1. Use one of the toys to make a sound. Ask children: "What made that sound?" Repeat the sound.
2. Gather the children near the chart you have prepared. Explain that you are beginning a study of sound and that you have some toys that you would like to investigate. Use one to make a sound and then fill in the chart with the name of the object and description of the sound. Helpful sound words might include " blat, blare, honk, squeak, tootle, snap, clap, beep, click, clack, cluck, ring, clang, cling, ding, bing, bong, bang, twang, ting, hoot, rustle, whistle, whirr, roar, and growl."
3. Then ask children to tell you how the toy made the sound. Ask: "What was moving to make the sound?" Fill in the chart. Repeat for several different types of toys and instruments including percussion, wind and string instruments, and several other types of toys. Fill in the chart with their answers.
4. Explain that you would like children to work in pairs to investigate another way to make sound. Show them the book, cup, and rubber band. Explain that you would like them to find ways to use these objects to make sound. Explain that after they have tried several ways to make sound, you would like them to draw and label at least one of the ways that worked. Children should be able to answer the questions with responses parallel to those described in Step 3 above.
5. Lead a brief discussion to help children summarize the concept that sound is the result of movement/vibrations in matter.

Assessment

Students will contribute to sound chart and review/summarize with teacher.

Lessons

Lesson 5: String telephone

Length

One class period

Subjects

Language arts, music, science

Preparation/materials

- Paper cups (2 per group)
- String (kite or packaging string, 3 meters per group)
- Toothpicks (2 per group)
- Make string telephones, either one per pair of children, or enough sets for children to use as part of a group. Cut string three meters long. Use a pencil to poke holes in the bottom of the cups. Break the toothpicks in half. Tie a toothpick half to each end of the string. Put one toothpick through the holes of each cup, so that the toothpick is on the inside of the cup. Let each toothpick lie flat against the bottom of the cup.

Instructional objectives

Students will:

- Make and explore string telephones;
- In groups, explain how sounds are made and how they travel.

Instructional plan

1. A larger space, such as the media center or cafeteria, may be helpful for this experience, so that pairs of children can whisper without interfering with one another.

   Remind children that the other day they talked about ways that loud noises could harm their hearing. Have pairs tell each other some examples they remember. Discuss some of their examples (in Lesson 2). Ask: "Is there a difference between hearing a loud noise one time and hearing it many times?" [Yes, many exposures to a loud noise can contribute to hearing loss.]

2. Explain that the students will be working with a different problem, sounds that are too quiet to hear over long distances. Show the children one example of the string telephone. Ask one child to listen into one cup while you whisper into the other cup (cover the other ear).
3. Explain to the children that they will work in pairs of children using string telephones to investigate what the best conditions are for hearing. Then children trace the path of sound from one partner's mouth to the other partner's ear. Caution the children to only use whispers and to work a short distance from other pairs.
4. After five or six minutes of investigation per partner, ask children to report on their findings. Ask: "What conditions worked best to hear the whispers? [String taut, touching nothing, partner's mouth directed into cup, quiet background, etc.]
5. Ask children to tell each other the path the sounds traveled from one mouth to the other ear. Discuss what the vibrations were moving through. [Air and string, but they move faster through string.] Ask children to write/draw/share the path of vibrations from mouth to ear.
6. Add a photo of a phone or speakers (or a digital photo of your "telephone pairs") to the "Sound" bulletin board.

Assessment

Prompt children: "A group of settlers were traveling across a wide prairie in wagons. They had camped for the night. Suddenly their guide put up his hand and asked for silence. Then he did a strange thing. He knelt down and put his ear on the ground. Then he said "Someone is coming!' How did he know?" [Sound travels more quickly through solids like the ground than through air.]

Lessons

Lesson 6: Our rubber band – *Explore the String family alongside this lesson*

Length

One class period

Subjects

Language arts, music, science

Preparation/materials

- Explore the string family on the interactive map of the orchestra at www.orsymphony.org/education-community/instruments/strings
- Computer, share videos 2, 9, and 10 from Companion YouTube list (p. 1) to listen to String instruments
- Gather geoboards (a common math manipulative) and rubber bands. You may need to contact your mathematics resource person for the manipulative, and your music teacher for an Orff instrument or xylophone.
- Rubber bands (a variety of lengths and thicknesses for each group)
- Xylophone (or Orff Instrument)

Instructional objectives

Student will:

- Use geoboards with rubber bands or jars with different depths of water to vary pitch;
- Write/share how they arranged the rubber bands and how they changed the pitches.

Instructional plan

Safety Precaution: To prevent eye injury, good discipline is necessary when children play with rubber bands.

1. Begin with a motivating sound activity. You might play a bell, a gong, or any instrument. Ask: "How do we make sounds?" [Vibrations, moving back and forth.]
2. Show the children the xylophone (or Orff instrument) and ask if they might predict the pitches on the xylophone. (The shorter the bar, the higher the tone). Try out several bars to check.
3. Explain to the children that they are going to investigate another way to change pitch. Show them a geoboard. Put a rubber band on it and pluck it. Ask: "Could I change the pitch of this sound?" Try out one or two of their ideas. Explain to children that you would like them to investigate how to change pitch using the geoboards with rubber bands.
4. After children have tried and recorded various arrangements, ask them to stop working and discuss their findings. "Is there a rule which tells how pitch will change?" [Yes. The tighter the band is stretched, the higher the pitch. Thinner rubber bands sound higher, thick ones sound lower.] Ask the children to write/share what they did with the rubber bands, and what they found out about how to change the pitch.
5. Discuss with the children how the geoboard with rubber bands is like a stringed instrument. Introduce/review that in addition to plucking the strings (like they did with their geoboards), string musicians most commonly draw a bow across the strings to create their sound. Go to www.orsymphony.org/education-community/instruments/strings to explore the string family.

Assessment

This is an embedded assessment. Listen to the class discussion of the rules for changing pitch xylophones and rubber bands. Look for consistency of rules and application of rules.

Lessons

Lesson 7: Making music

Length

One class period

Subjects

Language arts, music, science, visual arts

Preparation/materials

- Gather a variety of materials for children to use to make instruments. Alternately, provide simple directions for children to make an instrument at home. Expand your list as necessary if you chose to make additional instruments found on pages 16 & 17.

Balloons	**Oatmeal box**	**Tape**
Cereal box	**Paper tubes**	**Wood**
Dowels	**Plastic bottles**	**Wooden spoons**
Glass jars	**Rubber bands**	
Juice cans	**Sandpaper**	
Margarine tubs	**Seeds**	
Nails	**Spoons**	

Instructional objectives

Students will:

- Make simple instruments to demonstrate their understanding of sound generation.

Instructional plan

1. Ask children to list ways they have made sounds in class. List their ideas on the board. Then ask children to tell some of these ways that could be used to make music. Say: "One kind of instrument is a percussion instrument. It makes sound by hitting one object against another in some way." Ask: "Were there any ways we made percussion instruments like drums?" [Paint stirrers, tapping, clanging spoons.]
   Say: "Wind instruments are made when air is vibrated in a container. Which object was a wind instrument?" [Straw clarinets.] Say: "Stringed instruments make sound when a string is plucked. Did we make stringed instruments?" [Yes, Geoboards.]
2. Then explain to the children that they will be making musical instruments (at school or at home). Explain that when the instruments are ready, each child will have a chance to play his or her instrument for the class and tell how the instrument makes sound.
3. If children are making instruments in class, show some of the materials that have been gathered. Briefly discuss how one or two might be turned into a drum, a shaker, a scraper, or a horn. If you have materials for decoration, display those as well.
4. When a few children have completed their instruments, begin an "Instrument Sharing Time." Each day have three or four children play their instruments, tell how they made them, and explain how they make sounds.

Assessment

Create a rubric to evaluate the children's explanation of how their instruments make sound.

Woodwinds – *Charting a Changing Course*

Woodwind family

How it works

The instruments in the Woodwind family used to be made of wood, which gives them their name. Today, they are made of wood, metal, plastic or some combination. They are all basically narrow pipes with holes, an opening at one end and a mouthpiece at the other. You play them by blowing air through the mouthpiece (that's the "wind" in "woodwind") and opening or closing the holes with your fingers to change the pitch. Metal caps called keys cover the holes of most woodwind instruments.

The mouthpieces for some woodwinds, including the **clarinet, oboe** and **bassoon,** use a thin piece of wood called a reed, which vibrates when you blow across it. The **clarinet** uses a **single reed** made of one piece of wood, while the **oboe and bassoon** use a **double reed made of two pieces** joined together. To play the clarinet and the oboe, you hold the instrument upright, blow through the reed in your mouth and use both hands to press down on the keys to open and close the holes and change the pitch. The **flute** is played by holding it horizontally with both hands and blowing across a hole in the mouthpiece, much like blowing across the top of a bottle. Your fingers open and close the keys to change the pitch. You play the bassoon by holding it upright and blowing through the double reed just like an oboe. The air travels down the tube and then makes a u-turn and goes up and out the top. Just like the oboe, clarinet and the flute, you use both hands to press on the keys to open and close the holes and change the pitch.

The instruments

Just like the stringed instruments, the smaller woodwinds play higher pitches while the longer and larger instruments play the lower pitches. The woodwind family of instruments includes, from the highest sounding instruments to the lowest, the **piccolo, flute, oboe, English horn, E-flat clarinet, clarinet, bass clarinet, bassoon** and **contrabassoon.**

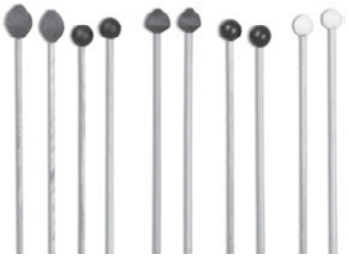
The French horn player joins the woodwind quintet to add some color – even though it is made of brass and has a different mouthpiece.

Flute **Oboe** **Clarinet** **Bassoon**

Percussion family

How it works

The percussion family is the largest in the orchestra. Percussion instruments include any instrument that makes a sound when it is struck, shaken or scraped. Some percussion instruments are tuned and can sound different notes, like the xylophone, timpani or piano, and some are untuned with no definite pitch, like the bass drum, cymbals or castanets. Percussion instruments keep the rhythm, make special sounds and add excitement and color. Unlike most of the other players in the orchestra, a percussionist will usually play many different instruments in one piece of music. Percussionists also use different kinds of **mallets** to change the sound when striking or scraping an instrument. Brushes, mallets and sticks come in various shapes and sizes. Scraped percussion instruments are less common in the orchestra, but are used in much of the oflk music in the world.



The instruments

The instruments of the percussion family have international ancestors from the Middle East, Asia, Africa, the Americas and Europe representing musical styles from many different cultures. The most common percussion instruments in the orchestra include the **timpani, xylophone, cymbals, triangle, snare drum, bass drum, tambourine, gongs, chimes, celesta** and **piano.**

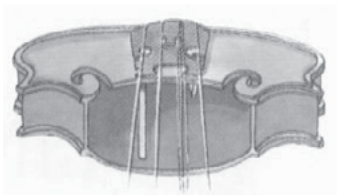
Piano

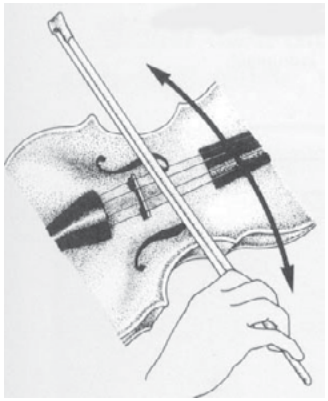
String family

How it works

When you look at a stringed instrument, the first thing you'll probably notice is that it's made of wood, so why is it called a stringed instrument? The bodies of the stringed instruments, which are hollow inside to allow sound to vibrate within them, are made of different kinds of wood; but the part of the instrument that makes the sound is the strings, which are made of nylon, steel or sometimes gut.

The strings are played most often by drawing a **bow** across them. The handle of the bow is made of wood and the strings of the bow are actually horsehair from horses' tails! Sometimes the musicians will use their fingers to pluck the strings, and occasionally they will turn the bow upside down and play the strings with the wooden handle.





The instruments

The strings are the largest family of instruments in the orchestra and they come in four sizes: the **violin**, which is the smallest, the **viola**, the **cello**, and the biggest, the **double bass**, sometimes called the **contrabass**. (Bass is pronounced "base," as in "baseball.") The smaller instruments, the violin and viola, make higher-pitched sounds, while the larger cello and double bass produce low rich sounds. They are all similarly shaped, with curvy wooden bodies and wooden necks. The strings stretch over the body and neck and attach to small decorative heads, where they are tuned with small tuning pegs.

You play the violin and viola by resting it between your chin and left shoulder. Your left hand holds the neck of the instrument and presses down on the strings to change the pitch, while your right hand moves the bow or plucks the strings. Since the cello is too large to put under your chin, you play it sitting down with the body of the cello between your knees and the neck on your left shoulder. The body of the cello rests on the ground and is supported by a metal peg. The double bass is so big that you have to stand up or sit on a very tall stool to play it. Like the cello, the body of the double bass stands on the ground, supported by a metal peg, and the neck rests on your left shoulder. You play the cello and the double bass in a similar manner to the violin and viola, using your left hand to press down on the strings and your right hand to move the bow or pluck the strings.

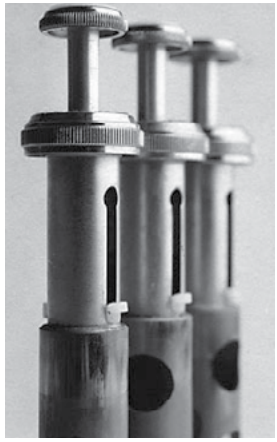
Violin **Viola** **Cello** **Double bass**

Brass family

How it works

If you think the brass family got its name because the instruments are made of brass, you're right! This family of instruments can play louder than any other in the orchestra and can also be heard from far away. Although their early ancestors are known to have been made of wood, tusks, animal horns or shells, today's modern instruments are made entirely of brass. Brass instruments are essentially very long pipes that widen at their ends into a bell-like shape. The pipes have been curved and twisted into different shapes to make them easier to hold and play.

Like the woodwind family, brass players use their breath to produce sound, but instead of blowing into a reed, they vibrate their own lips by buzzing them against a metal cup-shaped mouthpiece. The mouthpiece helps to amplify the buzzing of the lips, which creates the sound. Most brass instruments have valves attached to their long pipes; the valves look like buttons. When you press down on the valves, they open and close different parts of the pipe. You change the pitch and sound by pressing different valves and buzzing your lips harder or softer.



The instruments

The brass family members that are most commonly used in the orchestra are the **trumpet, French horn, trombone** and the **tuba.** To play all four of the different brass instruments, the first step is to buzz your lips into the mouthpiece. **Each brass instrument has a different shaped mouthpiece,** helping to create the different sounds. The trumpet is the smallest member of its family and plays the highest pitches. You play the trumpet by holding it horizontally, buzzing your lips into the mouthpiece and pressing down the three valves in various combinations to change pitch. To play the French horn, you hold it with the bell curving downward and buzz into the mouthpiece.

Your left hand plays the three valves and you can change the type of sound you make by the way you place your right hand in the bell. You play the trombone by holding it horizontally, buzzing into the mouthpiece and using your right hand to change pitch by pushing or pulling the slide to one of seven different positions. You play the tuba sitting down with the instrument on your lap and the bell facing up. You blow and buzz into a very large mouthpiece and use your hand to press down on the valves which changes the sound. It takes a lot of breath to make sound with the tuba!

Trumpet

French Horn

Trombone

Tuba

Make your own instruments!

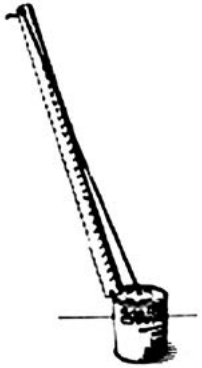
Create an instrument

Make a shoebox violin

You will need a shoe box, rubber bands of different widths, scissors and craft materials to decorate.

- Cut a hole in the lid of a shoebox;
- Stretch different width rubber bands round the box.
- Roll the excess cardboard from the hole and place it under the rubber bands to make a "bridge."

Java jive bass



You will need a 2 pound coffee can, hammer, nail, 5-foot long piece of heavy string, small craft stick or a popsicle stick, utility knife (needs adult supervision), and a yard stick.

- Make a small hole in the center of the bottom of the coffee can by pounding the nail through hit;
- Tie one end of the string around the middle of the popsicle stick, making many knots to make sure it holds;
- Thread the free end of the string through the hole in the can so that the small stick is on the inside of the can;
- With an adult's help, use the utility knife to make a small hole in one end of the yard stick and a wedge-shaped notch in the other end of the stick;
- Set the long stick on the bottom of the can so that the notched end is on the rim. Pull the string taut and tie it through the hole at the top of the yard stick;

Play your bass by plucking the string while holding the can down with one foot. Make different sounds by changing the string's tension.

Pop bottle flute

Make a pop bottle flute. You will need 6 plastic water bottles or glass pop bottles, a plastic six-pack holder or tape and food coloring.

- Fill the six bottles with different levels of water and put different food coloring in each bottle;
- Put the bottles in the six-pack holder, or secure together with tape;
- Blow over the top of the bottles to create different tones/pitches

Straw clarinet

Make a straw clarinet. You will need 1 thin straw, 1 thick straw, a paper funnel, scissors, and a ruler.

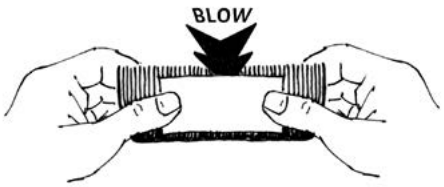
- Flatten the stem of the thin straw, snip off the corners of the flattened end with scissors to make the mouthpiece;
- Insert the end of the mouth piece into the thicker straw, blow through this. Move the thicker straw up and down;
- Cut out the funnel or punch a hole in the bottom of a Dixie cup and tape or glue it to the end of the thick straw. This is the amplifier, or the bell.

Experiment with cutting holes in the thicker straw, like a clarinet, cover them with your fingers in different ways to create different pitches.

Make your own instruments!

Create an instrument

Make a buzzing comb



Here is another type of woodwind instrument you can make. This one makes its sound from vibrations – like a woodwind instrument using a reed. You will need a small comb and paper squares approximately 2 inches by 2 inches.

- Hold the small pocket comb with the teeth pointed toward you.
- Place a small piece of paper on the comb on the side closest to you, holding in place with your thumbs.
- By holding the comb and piece of paper together with your lips and blowing, you can make the paper vibrate – which makes a sound.

Can drum or shaker

Make a tin can drum or shaker. You will need one coffee can, 3 tablespoons of beans, a balloon, a rubber band, two straws, masking tape and craft material for decoration.

- Put beans inside the can;
- Stretch the balloon over the open end of the coffee can. Secure the balloon with the rubber band;
- Take strips of masking tape about 1 foot long and form into two balls to attach to the end of the straws. These are your drum sticks;
- Decorate your drums!

Small shakers

Make your own set of shakers that fit in the palm of your hand. Keeping the beat with the music is easy and sounds so nice!

- Put a small amount of rice, beans, macaroni, etc., into a film can with a lid.
- Notice how the size or weight of different items make a difference in the sound when shaken.

French Horn

Make a French Horn. You will need a length of garden hose 5–8 feet long and 1/2 to 3/4 inch in diameter, a plastic funnel, a baby bottle nipple, adhesive tape, and scissors.

- Cut the tip off of the baby bottle nipple and insert the cut top on one end of the hose;
- Put the plastic funnel on the other end of the hose;
- Secure with adhesive tape and tie the hose so it is in the shape of a French horn;
- Practice “buzzing” your lips and play your horn.

Humming horns

Make a horn that sounds like a kazoo.

- Cut a 5x5 inch square of wax paper;
- Put it over one end of a paper tube (paper towel, toilet paper) and hold it place firmly with a rubber band
- Hum a tune into the open end;
- Watch out – if you blow, the wax paper may come off!

Companion YouTube Listening Guide

Video	Theme	Composer/ Composition	Listening Comments
1	Full orchestra	Leonard Bernstein's *Overture to Candide*	Brass and percussion kick off the overture with a brilliant beginning to this high energy piece featuring the full orchestra. Many changes in texture, tempo, instrumentation and dynamics make this piece exciting and fun. As it comes to an end, the tempo gets faster and faster, leading to a dramatic finish.
2	Strings	Pyotr Ilyich Tchaikovsky's *Serenade for Strings, Finale*	Starts with melody in middle-low strings (violas, cellos, and string basses) High strings (violins) join in and take over the melody Contrasts in melodic material, smoother or legato sections followed by shorter or staccato sections Speed of music (tempo) slows down for a majestic ending
3	Low pitched sounds	Excerpt, Reinhold Gliere's *Russian Sailor's Dance*	Starts with melody in the low strings (cellos and string basses) Timpani is also heard in the first phrase Low brass join in (trombones and tuba) for the second phrase as violas play the melody with the cellos
4	High pitched sounds/ Soft sounds	Excerpt, Reinhold Gliere's *Russian Sailor's Dance*	This time the melody is soft and is played in the upper woodwinds (flutes and piccolo) Pizzicato accompaniment heard in the strings
5	Loud sounds	Excerpt, Reinhold Gliere's *Russian Sailor's Dance*	Melody is loud and agitated Brass (trumpets, horns, trombones, and tuba) and percussion (tambourine and snare drum) dominate this section

Companion YouTube Listening Guide

Video	Theme	Composer/ Composition	Listening Comments
6	Woodwinds	Excerpt, Pyotr Ilyich Tchaikovsky's *Symphony No. 4, Scherzo*	Begins with oboe accompanied by the lowest sounding woodwind instrument, the bassoon Melody is then passed between the flutes and clarinets Finishes with characteristic flourishes that are commonly heard in the woodwinds, this time flute and piccolo
7	Brass	Excerpt, Giovanni Gabrieli's *Canzon Septimi Toni No. 2*	Starts with full brass, trumpets, French horns, trombone, and tuba Contrasts in melodic material, some short or staccato sections followed by smooth or legato sections Melody is passed or echoed among brass instruments
8	Percussion	Excerpt, Benjamin Britten's *Young Person's Guide to the Orchestra*	Entire excerpt is based on the timpani (kettle drums) melody heard in the beginning Features many different percussion instruments including timpani, bass drum, cymbals, tambourine, triangle, snare drum, xylophone, castanets, and gong (tam-tam) Instead of getting louder as we approach the end, it gets softer (diminuendo) and ends with a quiet xylophone passage
9–14	Bonus Videos **9 Strings –** Gershwin's *Lullaby* **10 Strings –** Gioachino Rossini's *Willliam Tell Overture* **11 Woodwinds –** Rimsky-Korsakov's *Flight of the Bumblebee* **12 Woodwinds –** Strauss' *Tales from the Vienna Woods* **13 Brass –** Richard Strauss' *Also sprach Zarathustra* **14 Brass –** Ellington's *"It Don't Mean a Thing"*		Musicians will include these pieces in the Kinderkonzert series.

Name_____

I went to an Oregon Symphony Kinderkonzert today!

The _____ family of instruments played lots of music for us! There were _____ musicians who played for us. I want to tell you all about it!

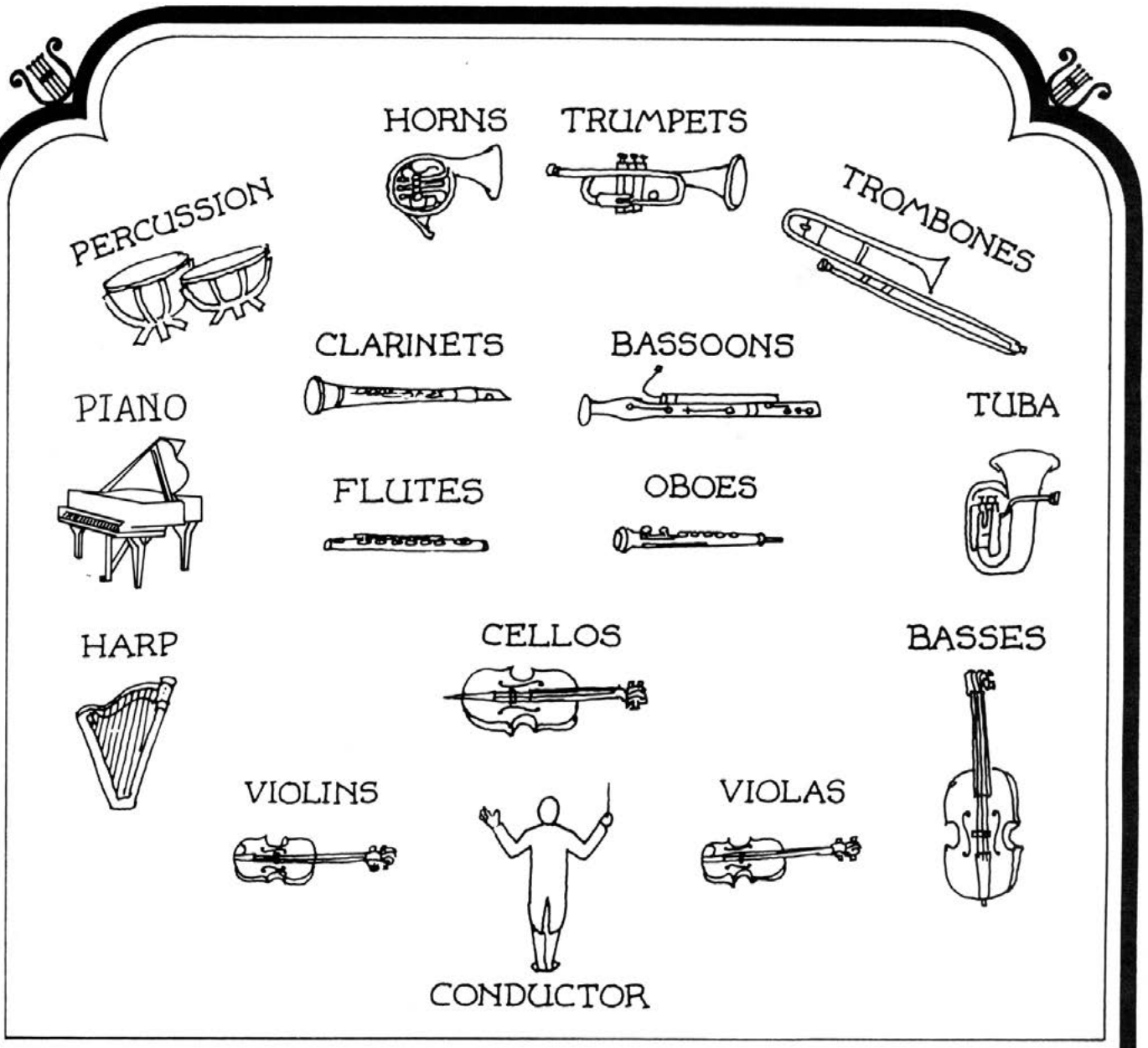
Some instruments in the _____ family are:

_____ _____

_____ _____

_____

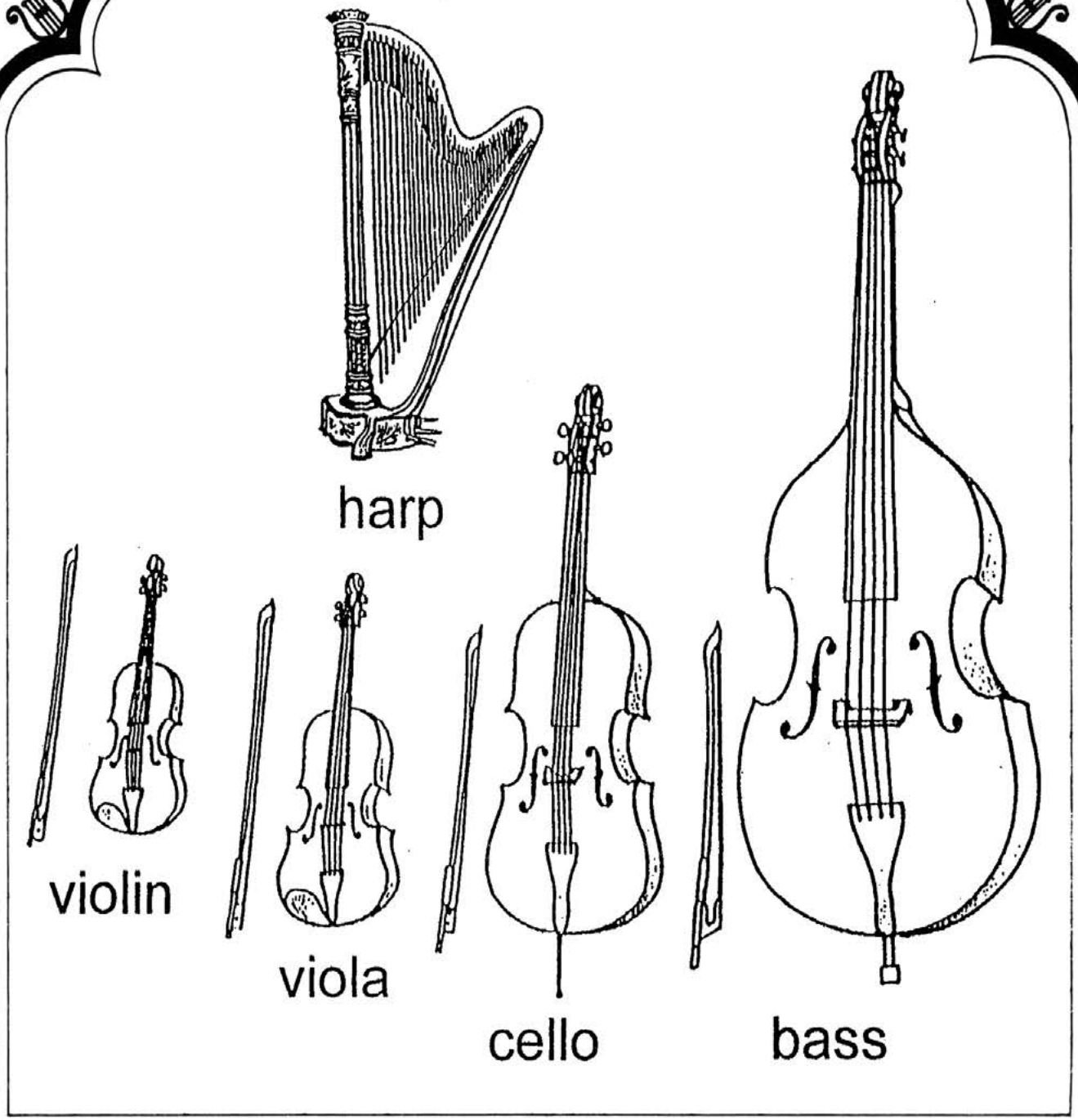
Here is a picture of my favorite part of the concert.



ABOUT THE ORCHESTRA

The symphony orchestra is the largest and most exciting of all musical groups with as many as one hundred players. It is divided into four musical families called strings, woodwinds, brass and percussion. Every instrument in the orchestra belongs to one of these families. In a symphony orchestra, the musical families are related to one another just like cousins, aunts and uncles. The orchestra is a big family of instruments playing together.

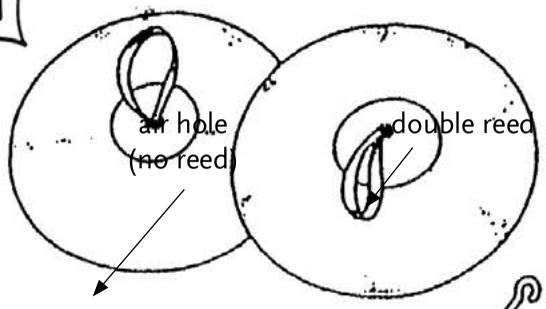
To learn more about *your* Oregon Symphony Orchestra check us out online at www.orsymphony.org/discover/orchestra



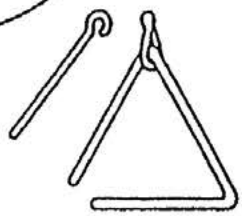
THE STRING FAMILY

This family is the largest in the orchestra and likes to sit up front. They include the violin, viola, cello, contrabass or string bass and the harp. When members of this family raise their voices, they twang, squeak, strum, whine and pluck. What other sounds would you hear in this family?

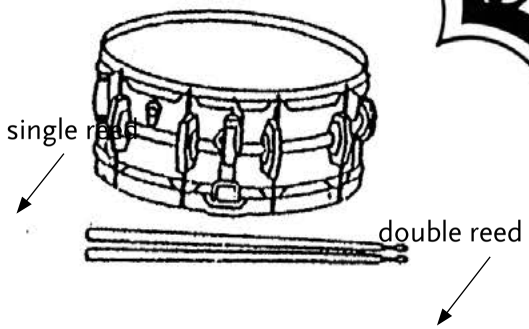
To learn more about *your* Oregon Symphony string family check us out online at www.orsymphony.org/discover/orchestra



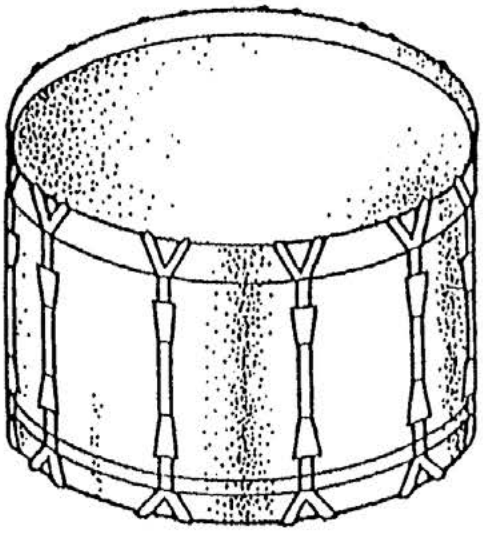
cymbals



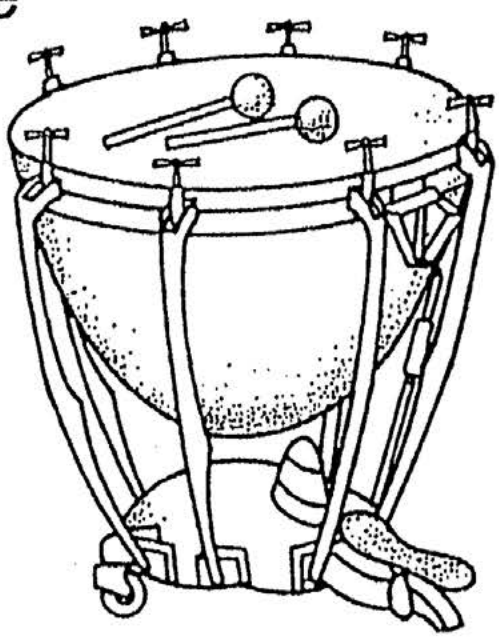
triangle



snare drum



bass drum

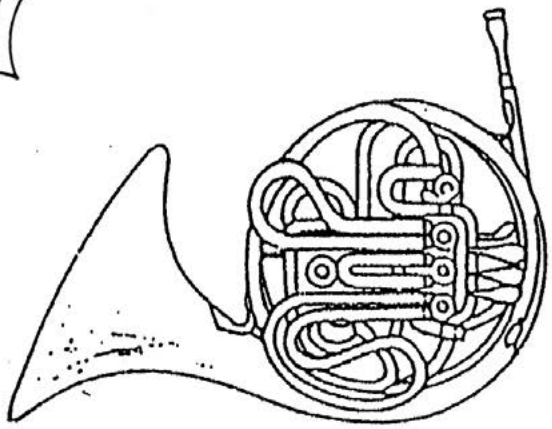


timpani

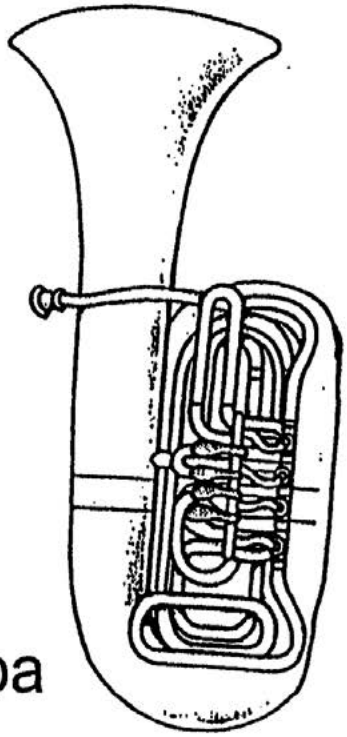
THE PERCUSSION FAMILY

These instruments have the funniest names in the orchestral family. They include the glockenspiel, xylophone, celesta, tambourine, gourd, tamtam, gong, and many others.
Sound is produced by striking or shaking one instrument against another. These family members bang, chatter, click, snap, drum and ring.

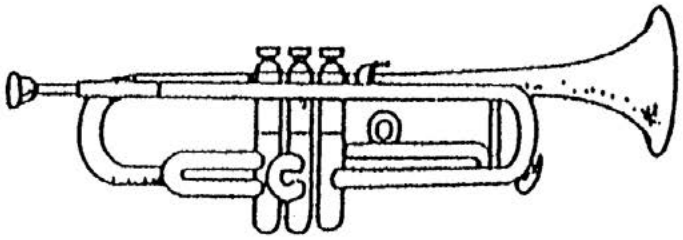
To learn more about *your* Oregon Symphony woodwind family check us out online at www.orsymphony.org/discover/orchestra



french horn



tuba



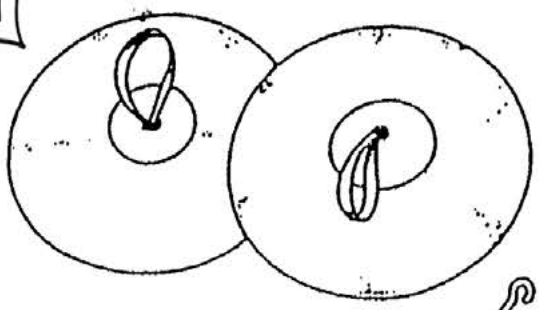
trumpet

trombone

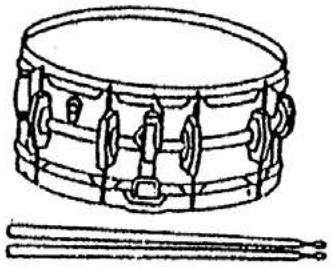
THE BRASS FAMILY

These are very busy instruments who perform in bands as well as orchestras. Members of the brass family are the French horn, trumpet, trombone and tuba. Like the woodwinds, brass instruments produce sound when air is blown through a tube. These family members toot, bugle and pipe.

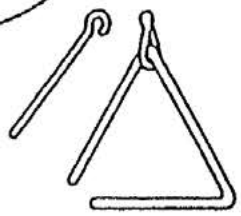
To learn more about *your* Oregon Symphony brass family check us out online at www.orsymphony.org/discover/orchestra



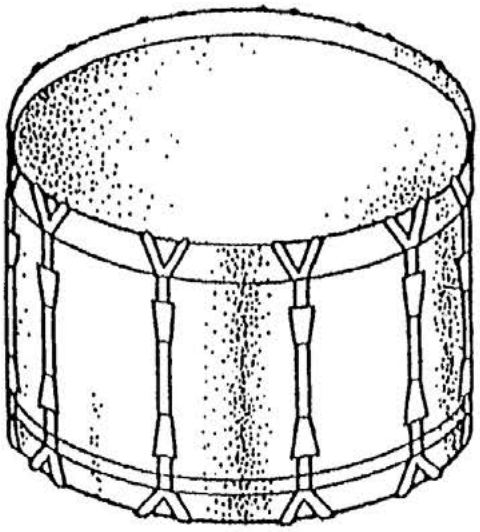
cymbals



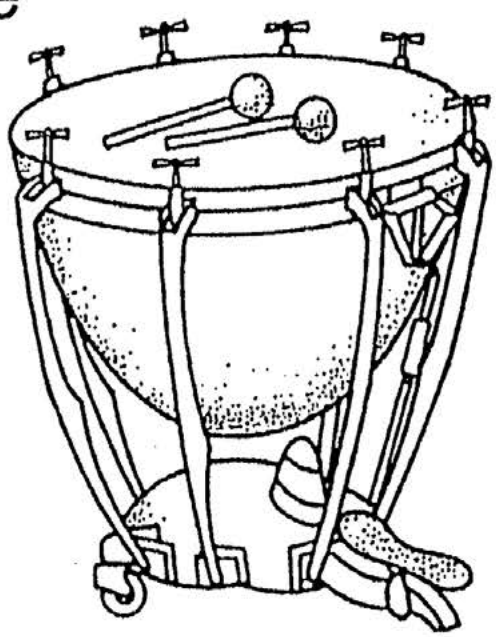
snare drum



triangle



bass drum



timpani

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To learn more about *your* Oregon Symphony percussion family check us out online at www.orsymphony.org/discover/orchestra

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Annissa Bolder, M.M. Ed.
Director of Education & Community Engagement

Pam Mahon
Narrator