## MINNESOTA ORCHESTRA

# PHILIARMONIA FADTASTIQUE



Designed for students in grades 1-6

Prepared by Minnesota Orchestra Education & Community Engagement Department and Katie Condon



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## Philharmonia Fantastique

#### TEACHER PREFACE

The Philharmonia Fantastique: The Making of the Orchestra concert introduces students to instrument families and to many of the instruments in a symphony orchestra. The concert features Philharmonia Fantastique: The Making of the Orchestra, a piece that is paired with a film. The piece and film introduce instrument families and individual instruments by sight and sound. The first set of activities in this curriculum further extend learning by addressing how sound is produced in each respective instrument family.

#### PREPARATION ACTIVITY

Review or introduce the fundamentals of sound creation and vibration. Sample language:

"All sound is created by some kind of vibration. Every musical instrument vibrates in some way to make its sound. Instruments that vibrate in the same way are grouped together in instrument families. There are four main instrument families: woodwinds, brass, strings and percussion."

Optional: sing "Instruments" song in <u>PRINTABLES</u> section at the end of this guide.

Use the following hands-on activities at your own pacing and according to your schedule. The first few activities require some very basic supplies, mostly household or recycling items.



#### Preparing for Your Trip



#### **QUESTIONS OR CONCERNS?**

Please contact our Logistics Coordinator at 612-371-5671 or <u>youngpeoples@mnorch.org</u>.



We want you and your students to have a GREAT DAY at Orchestra Hall! Please help us by following these simple guidelines:

#### **BEFORE YOU LEAVE SCHOOL**

Please give a copy of your ticket to every bus driver and group leader on the day of the concert.

Tickets will be emailed to you approximately 2 weeks prior to the concert and will give detailed parking, arrival and seating instructions.

#### 2

Please ensure all adults in your group are wearing the nametags provided.

Nametags will be mailed to you prior to the concert. Safety is our first priority at Orchestra Hall and we appreciate your help in ensuring a safe environment.

#### WHEN YOU ARRIVE AT ORCHESTRA HALL



Please keep a single file line from your bus to your assigned seats.

**HOMESCHOOLERS:** Please park private vehicles in nearby parking ramps.

**SCHOOLS:** Security personnel and ushers will greet your bus as you arrive and help you park. You will be directed to your arrival door and led directly to your seats.

SEATING: We have assigned your school to a specific section of Orchestra Hall.

You are seated from front to back according to when you arrive. If anyone in your group needs an assistive listening device, please let one of our ushers know on the way to your seats.

Please note: If your group gets separated, let our ushers know. They will direct you to a holding area so you can gather everyone in your group and enter the auditorium together.

#### ONCE YOU ARE SEATED



Please let the usher seat your group BEFORE:

• Sending students to the restrooms (must be accompanied by an adult)

• Re-arranging the seating of your students

If you or someone in your group requires assistance during the concert, please contact the ushers located at the back of each section near the auditorium exits.

#### Dear Educators,

Thank you for joining us for the first Young People's Concerts of the 2023–24 season, Philharmonia Fantastique!

We are kicking off the season by exploring the instrument families that make up an orchestra through this exciting, educational film with the soundtrack played live on stage by your Minnesota Orchestra! Students will learn about the different timbres and tones of each instrument section while experiencing them live on stage—from the bombastic brass to the sweeping string lines. Conducted and hosted by Minnesota Orchestra's own Sarah Hicks, this program is sure to ignite the excitement of live music in all students.

Please feel free to contact me if you or your students have questions about the Concert Guide, and we look forward to seeing you at Orchestra Hall!

#### Sincerely,

Jessica Lowry Manager of Education Programs

#### Mitra Sadeghpour

Director of Education and Community Engagement

#### CONCERT ETIQUETTE

Watch this short <u>Class Notes video</u> from YourClassical Minnesota Public Radio to help students understand some of the expectations for classical audiences.

#### ACCESSIBILITY



Please contact our Logistics Coordinator at 612-371-5671 or <u>youngpeoples@mnorch.org</u> in advance of your visit if you require any services or amenities.

We also have noise-reduction head phones, fidgets and other sensory supports available for anyone who needs them. Please ask an usher for assistance once your group is seated.

#### LISTEN TO THE MUSIC

Use this **Spotify playlist** to hear the music being performed on the concert.

When introducing the music on this concert to your students, consider asking the following questions to create an inquiry-based, focused discussion in class. Have students focus on one question at a time as they listen. This will allow them to hear the piece multiple times and gain familiarity with the music.

- 1. What did you notice in the music?
- 2. What does the music remind you of?
- 3. How do you think the composer wants to make you feel?
- 4. What would you want to know about the music?

#### CHECK OUT THE PREPARATION ACTIVITIES!

All activities are aligned with Minnesota State Standards.

#### Guide to the Orchestra



VIOLIN String Family



DOUBLE BASS

String Family



**OBOE** Woodwind Family



VIOLA

String Family



**PICCOLO** Woodwind Family



CLARINET Woodwind Family



BASSOON Woodwind Family

1 V 🗎

6

Visit our <u>Guide to the Orchestra</u> to learn about the instruments of the orchestra. You'll see photos of the instruments, descriptions, and short video demonstrations too!

#### Meet the Performers

#### MINNESOTA ORCHESTRA

The Minnesota Orchestra began as the "Minneapolis Symphony Orchestra" in 1903. Within a few weeks of the orchestra's first performance on November 5, 1903, baseball's first World Series was played and the Wright brothers made their first airplane flight.

Re-named "Minnesota Orchestra" in 1968, the ensemble plays nearly 175 performances a year. The orchestra has toured to Australia, Asia, Europe, the Middle East, Canada and Latin America, and the most recent international tours have been to Cuba, England and South Africa.

There are approximately 85 musicians in the Orchestra.

The Minnesota Orchestra won a Grammy Award for "Best Orchestral Performance" in 2014 for their recording of Sibelius' Symphonies No. 1 and 4.

Our musicians are the best at what they do and dedicate their lives to music making. And that's not all! They are also athletes, teachers, volunteers, petowners, environmentalists and more.



MINNESOTA ORCHESTRA MUSICIANS

#### **Composer Corner**



#### **Mason Bates**

#### (1977-PRESENT)

Mason Bates was born in Philadelphia in 1977. He developed an interest in both music and technology and began to combine electronic sounds together with music for orchestral instruments.

He enjoys collaborating with orchestras and arts organizations all over the country and the world. He currently lives in the San Francisco area and recently wrote an opera about Apple co-founder Steve Jobs.



#### **Bedřich Smetana**

(1824–1884)

Bedřich Smetana was born in 1824 in Bohemia, a region of the Czech Republic. His music often reflected aspect of Bohemian history, folklore, and landscapes. He had a long friendship with the composer Franz Liszt.

In addition to composing, Smetana was well-known as an excellent pianist. Like another famous composer (Ludwig van Beethoven), he became deaf toward the end of his life but continued to compose music. Smetana died in 1884 in Prague.

#### Explain —

If an instrument makes its sound from a string that is plucked or pulled with a bow, it's in the string family.

#### Review —

Use this **<u>GUIDE TO THE ORCHESTRA</u>** to look at and name some instruments in the string family.

#### Do —

Tell students that you will think about and explore strings by making string vibrate. Note: Adjust all activities to meet students' developmental needs.

#### Supplies Needed —

A variety of rubber bands. Optional: empty cardboard boxes, including shoe boxes, cereal boxes, or boxes of macaroni and choose.

- Collect rubber bands of various shapes and sizes. Choose to either demonstrate all activities first and then facilitate student exploration or lead and model activities together with students.
- Stretch a rubber band between your fingers and start plucking. Notice details. Wonder what happens if you stretch a rubber band tighter-does the sound change? Compare and contrast the sounds of different-sized rubber bands.
- As you explore, ask questions to help students begin to make connections to instruments. For example: "What part of a violin is like the rubber band? That's right, the strings! Do you think the strings on a cello are longer or shorter than a violin?" Or, "All the strings on the violin are the same length. What makes some violin strings higher than others?"

Answer: more tension (pulled tighter) or mass (how thick the string is) or both!

- Further discuss string vibration by explaining that when string players move their fingers on the strings, putting them in different positions, this changes the length of the string, thus changing the sound produces. One thing string players learn is where to put their fingers different pitches or notes sound.
- Optional: Explain that there are three variables that affect string vibration (and thus, the sound made by a vibrating string)
  - A. Tension of the string. Pull the rubber band tighter to demonstrate and compare and contrast.
  - B. Length of the string. Find two rubber bands of varying lengths. Pluck, listen, and compare!
  - C. Mass (or thickness) of string. Find two rubber bands of varying thickness. Pluck, listen, and compare!
- Explain that many string instruments have a wooden "body" helps to amplify (or make louder) the sound of the string vibration. Discuss the idea of resonance, explaining that if a string is touching another object when it vibrates, it causes that object to vibrate too. More vibration means more sound!
- Extend the activity by bringing in other materials that replicate other parts of a string instrument. Explore this idea by stretching rubber bands across a variety of open cardboard boxes. For a better sound, find a cereal box or a box of macaroni and cut out a SOUND HOLE.
- Optional: LOOK AT A DIAGRAM OF A STRING INSTRUMENT and discuss how
  each part might contribute to sound production.
- Review and reinforce by asking students to name a few parts of a string instrument (strings, body) and asking how they help make or amplify the sounds on the instrument.



#### How sound is produced: Woodwinds

#### Explain —

If an instrument makes its sound from blowing wind (another way to say breath) through a thin piece of wood (called a reed) or over across an open hole, it's in the woodwind family.

#### Review —

Use this **<u>GUIDE TO THE ORCHESTRA</u>** to look at and name some instruments in the woodwind family.

#### Do —

Tell students that you will think about and explore woodwinds by using breath to make a vibration in a tube.

Note: Adjust all activities to meet students' developmental needs.

#### Supplies Needed —

Plastic drinking straws and scissors.

 Begin by asking: "Have you ever blown across the top of an open bottle to make a sound?" Demonstrate this. Explain that some woodwind instruments make their sound that way—when a player blows across an open hole. The fast-moving air from your breath makes the air inside the tube of the instrument vibrate. Ask which instrument in the woodwind family makes a sound this way.

Answer: the flute.

- Other woodwind instruments make a sound when the player blows their breath or wind across a reed. A reed is a thin piece of wood. Some woodwinds have single reeds, where the reed vibrates against a mouthpiece. Some woodwinds have a double reed, which is two reeds tied together. In a double reed instrument, the two reeds vibrate against each other.
- Experiment blowing wind into a plastic straw. Distribute plastic straw and encourage students to try to blow across the open hole at the top of the straw. It's hard to produce a sound that way! If you can get a sound produced, try cutting the straw to a shorter length. Notice how that changes the sound! Optional extension would be to cut several straws to different lengths and bind them together with a rubber band, or with glue, to create a pan flute of sorts. SEE ITEM #1 HERE FOR INSTRUCTIONS.
- Turn the straw into a do-it-yourself double reed instrument with a few easy snips of a scissors. Choose one end of the straw and press the end flat, maybe two centimeters. Using a scissors, cut diagonally across the top, and then repeat on the opposite side.



• Pinch the pointy ends flat together again, and BLOW. The two flaps should vibrate against each other. Cutting the bottom of the straw to a shorter length will produce a higher sound. Ask students how shorter sounds are produced on orchestra woodwind instruments like the oboe or clarinet.

Answer: pressing down keys (or lifting fingers up off of keys that were pressed down) changes the length of the tube.

#### Explain —

If an instrument makes its sound when a player "buzzes" their lips into a brass mouthpiece, it's in the brass family.

#### Review —

Use this **<u>GUIDE TO THE ORCHESTRA</u>** to look at and name some instruments in the brass family.

#### Do —

Tell students that you will think about and explore strings by making their lips buzz to create a vibration.

Note: Adjust all activities to meet students' developmental needs.

#### Supplies Needed —

Cardboard tubes, from paper towel or toilet paper rolls; wax paper; rubber bands; scissors.

- Ask students how to make a sound on a brass instrument, like a trumpet. If they say, "blow on it", explain that simply blowing air through the brass tube isn't enough. Demonstrate on a brass mouthpiece if you have one available to you.
- Explain that in addition to blowing, brass players must "buzz" there lips (demonstrate). The buzz of the player's lips creates a vibrating column of air inside the instrument, and a sound is made. Players adjust the pitch (or make higher and lower sounds) by buzzing their lips tighter or looser. Demonstrate.
- Explore buzzing into a tube! You don't need a brass instrument to experiment with lip buzzing. Using a cardboard tube (like a toilet paper roll) covered on one end with wax paper (secured in place by a rubber band), students can try buzzing tightly or loosely. <u>HERE ARE SOME INSTRUCTIONS TO MAKE A</u> <u>HOMEMADE KAZOO OF SORTS.</u> Compare and contrast all sounds and ask questions to connect to orchestral instruments. For example, "What is the function of valves on some brass instruments?"

Answer: they cut of the length of the vibrating air column inside the instrument, making it shorter or longer, and thus, higher or lower.

Note: A cardboard kazoo is not a brass instrument in any way! But the experience of feeling one's lips buzz in a tube helps develop an understanding of how players create a sound.



#### How sound is produced: Percussion

#### Explain —

If an instrument makes its sound from a string that is plucked or pulled with a bow, it's in the string family.

#### Review —

Use this <u>GUIDE TO THE ORCHESTRA</u> to look at and name some instruments in the percussion family.

#### Do —

Tell students that you will explore sounds through tapping, scraping and shaking.

Note: Adjust all activities to meet students' developmental needs.

#### Supplies Needed —

Anything you find in the recycling bin! Plastic bottles, cardboard boxes, pencils, spoons, tin cans.

• Remind students that there are literally hundreds of percussion instruments. In fact, anything can be a percussion instrument if you make a sound on it by tapping, scraping, or shaking. Explain that there is an entire kind of percussion referred to as found object percussion, or found sounds. Found sounds are sounds made by everyday objects-things not generally thought of as traditional instruments.

- Find a bucket and start to brainstorm all the different sounds a bucket can make. Demonstrate multiple ways of mankind sounds, such as tapping with fingertips, using a pencil like a drumstick to tap on it. Tap on different places and notice how the sound changes on different parts of the bucket.
- Together with your students, gather additional items. Discuss their use and then begin to think about how these things make sound.
- Here is some sample language and ideas to get your started.
  - Open and close a pair of scissors opening and closing. Can you move them faster, slower?
  - Paper makes interesting sounds. Cut it, crumple it, tear it.
  - Pots, pans, and utensils make sounds. Create a kitchen symphony.
  - Tap chairs, table, floor, milk cartons with a stick. Compare the different sounds.
  - Fill plastic containers (yogurt tubs, dixie cups with lids) with dried beans, pasta, or rice. Shake!
- Collect and categorize found sounds. Develop a deeper awareness of found sounds by grouping them into categories. Listening to and analyzing the sounds made by various objects help students develop awareness of timbre. Create categories based on the material from which the object is made.

Categories might include:

- Wood sounds
  Paper sounds
- Metal sounds
  Plastic sounds
- With each category, see if there are ways you can make sounds using all three kinds of actions: shaking, tapping, and scraping. Corrugated materials, like tin cans or the inside of cardboard coffee sleeve work well for scraping sounds. Use your found sound percussion instruments to accompany classroom songs or to learn new rhythms.

#### Activity #4

#### How sound is produced: Percussion

Optional extension: Create "ABA" compositions using found sounds. Music is full of patterns. Many songs and instrumental pieces follow a pattern of "same-different-same." We hear one thing, then something different, then the first thing again. Musicians show this pattern by writing "ABA."

Create some ABA compositions with your students. You don't need to notate music; just use a grid to help organize ideas. Reinforce difference with color changes. Encourage students to name their compositions. In small groups or alone, ask students to practice and perform their work.

Directions on the grid can be very specific or a little more open-ended. Sample grid below, followed by an example of a very simple ABA Found Object composition. Find a version of grid in the <u>PRINTABLES</u> section of this guide.

А	В	А

А	В	A
Homemade shakers: 10 steady beats	Play a favorite beat pattern six times on a cardboardbox, using pencils as drum- sticks	Homemade shakers: 10 steady beats



#### Learning Checklist for Activites 1–4

- □ I can identify string instruments by sight and sound and explain the basic mechanics of how they produce a sound.
- □ I can identify woodwind instruments by sight and sound and explain the basic mechanics of how they produce a sound.
- □ I can identify brass instruments by sight and sound and explain the basic mechanics of how they produce a sound.
- □ I can identify percussion instruments by sight and sound and explain the basic mechanics of how they produce a sound.

#### Activity #5

#### Color and Mood in Music

In the movie *Philharmonia Fantastique: The Making of the Orchestra*, each instrument family is identified by a different color:

Strings = Green

Brass = Yellow

Woodwinds = Blue

Percussion = Red

In music, timbre (pronounced TAM-ber) is the term we use to describe the tone color, or unique sound, of any instrument (or voice). Use the following questions for journaling, reflection or class discussion.

- What does color in music mean to you?
- Do you connect certain colors to certain sounds?
- Colors are sometimes connected to moods. Do you think music can be connected to moods? Can you give an example of a way music is connected to mood or color?
- LISTEN TO ANY SELECTION OF MUSIC and ask students to describe what colors they hear. Modify or extend by using crayons, markers or other art supplies to draw along with listening.



#### Learning Checklist

 $\Box$  I can reflect on and respond to a variety of musical selections.

□ I can demonstrate understanding of connections between music and moods/emotions.



#### Activity #6

Listening, moving, and responding to the Overture to *The Bartered Bride*, by Bedřich Smetana

The following activities offer movement opportunities and help secure fundamental music concepts through kinesthetic learning.

#### Important Definitions —

- Dynamics: the volume level in music, or how loud or soft music sounds
- **Pianissimo**: extremely quiet musical sounds, often marked by the symbol *pp* in music
- Fortissimo: extremely loud musical sounds, often marked by the symbol *ff* in music
- Crescendo: a gradual increase in the dynamic level, or volume, in a section of music
- Next, explain that the Overture to *The Bartered Bride* is full of dynamic contrast, going back and forth between *fortissimo (ff)* and *pianissimo (pp)* many times throughout the seven-minute piece.
- Encourage students to use their arms or hands to show the dynamic level: arms outstretched for fortissimo sounds, moving closer together as the music gets quieter, and gradually moving wider during a crescendo. For students with limited mobility, modify to use a manipulative like a scarf or ribbon. If appropriate, encourage students to move arms/hands (outstretched or close together) to move along with the fast and energetic steady beat.

#### Learning Checklist

- □ I can respond to music through movement.
- I can use music vocabulary to describe dynamics in music.



## PRINTABLES



## TIMPANI

## **INSTRUMENT FAMILY: STRINGS**



## **INSTRUMENT FAMILY: WOODWINDS**

DI

PICCOLO

FLUTE

OBOE

CLARINET

BASSOON

## **INSTRUMENT FAMILY: BRASS**

Printable #1



## **INSTRUMENT FAMILY: PERCUSSION**



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## **INSTRUMENT FAMILY: PERCUSSION**







#### TIMPANI

#### MALLET PERCUSSION

(XYLOPHONE, MARIMBA, VIBRAPHONE, GLOCKENSPIEL)

#### CYMBALS

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## **ABA GRID**

Α	В	Α

## **INSTRUMENTS SONG**







#### WELCOME!

Orchestra Hall, home of the Minnesota Orchestra since 1974, is known as one of the best acoustic spaces in the world. In 2012, the Hall was renovated to create longawaited upgrades and additions throughout the building.

As you walk into the lobby area and into the auditorium, here are some things to look for...

#### About Orchestra Hall



Yes, Orchestra Hall has lockers! But instead of putting school books in them, audience members put their coats in them during concerts. We thought about getting rid of them during the renovation but discovered that having coats in the lockers actually helps to sound-proof the auditorium because they soak up sound!



The small holes in the brown paneling on the lobby walls absorb sound so everyone can talk to their friends at the same time without having to shout!



Fuzzy carpeting on the walls is another soundprooing element of the ring corridor.



Look for a one inch gap as you walk through the lobby doors into the ring corridor. Orchestra Hall is actually two separate buildings separated by a one-inch gap that is filled with a special material to block noise and vibrations from going inside the auditorium.



There are 114 cubes on the ceilings and walls. Instead of absorbing sound like in the lobby, the cubes bounce the sound all over the place so everyone can hear our Orchestra play. But that also means that if you talk from your seats the musicians can hear you too!



*Why cubes*? When they were first building Orchestra Hall the architects kept envisioning a shape on the walls and ceiling but couldn't decide what to use. Legend has it that one of the architects went home to have dinner with his family and as he described the problem with the hall, his kids responded "It could be like Fantastic Four superhero 'The Thing!'" He loved the idea so much that he added cubes on the wall and ceiling, giving the hall its iconic "Thing-inspired" look!