



SPRING 2024

ISSUE 3

piano inspires

KIDS



DISCOVER

How Music Impacts
the Brain

EXPLORE

How We Learn

PLAY

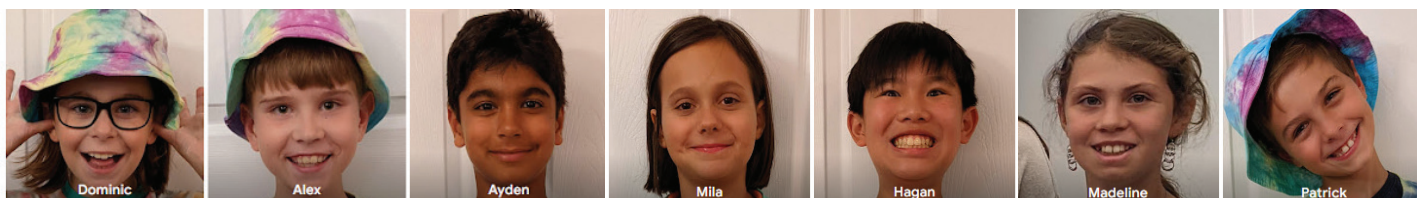
New Music
by Chee-Hwa Tan

SHARE

Memorization Tips

IN THE NEWS:

Lego League Wins First Place for an Inspiring, Inclusive Innovation



ÉQUIPE FRANCOBOTIQUE, a French-speaking First Lego League team from Aurora, Ontario, Canada, has used universal design to create the “Inclusiano” (inclusive + piano combined), a new low-cost, durable, portable, and inclusive piano! This group of seven students in grades 4 to 6 and their coach Renée Northrup entered into the League’s challenge to build a robot and games around the theme of the arts. When discussing their artistic passions, they realized that everyone had learned an instrument, and most had learned the piano. They surveyed their schools and discovered that 83% of student participants wanted to learn music in school. The team recently won 1st Place Overall Champion and will represent Canada in the international competition!

MADLINE (GRADE 6) shared how her team’s work has changed her: “I have come to realize how lucky I am to have piano lessons and how playing music will be something I treasure for my entire life. Our project and music in general inspires me to keep playing the piano.”

ALEX (GRADE 5) explained that, “We would like to help other students learn to play a musical instrument. Music is so important but there isn’t very much music or instruments in our schools.” They believe all children should be able to learn to play an instrument. This team did their research; they spoke to teachers and administrators in schools for the blind and deaf, and experts in design for those with disabilities. They created this inclusive piano that, when connected to a computer screen, produces a vivid visual arts show for deaf users. To accommodate users with vision loss, the team added Braille music symbols to the 88 standard-size, laser-cut wood keys, and an extendable music stand to support large-print music.

Hear Here!

The Inclusiano is a fully working keyboard! Watch the computer graphics, and notice how each octave of color-coded keys varies from dark to light.



Do you have a story you
would like to share?

VISIT

kids.pianoinspires.com/piano-inspirations/

Sara Ernst, Andrea McAlister: Co-Editors-in-Chief. Sarah Leonard, Carla Salas Ruiz: Fulfillment and Support Services. Jennifer Snow: CEO of the Frances Clark Center. Designed by studio Chartreuse.

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The Frances Clark Center for Keyboard Pedagogy is a not-for-profit educational institution (501c3) that serves the advancement of piano teaching, learning, and performing through highest quality resources, initiatives, and programs. The Center includes: Piano Inspires, The National Conference on Keyboard Pedagogy, the Piano Magazine, The New School for Music Study, and Teacher Education Programs. The Frances Clark Center was founded in 1998 to advance the philosophy of world-renowned teacher and innovator Dr. Frances Clark. Dr. Clark believed passionately in the transformative power of music making in the life of every person, regardless of age or ability, and that the quality of a person’s musical life was directly attributable to the quality of teaching they experienced.

MUSIC AND THE BRAIN

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BRAIN BREAK:

Did you know that the brain is about 75% water? Go drink a glass of water to keep your brain and body hydrated!

Look for brain breaks throughout the magazine!



this issue's contributors



Diana Dumlavwalla

Diana Dumlavwalla is on the faculty at Florida State University's College of Music as Associate Professor of Piano Pedagogy. She serves as an examiner for the Royal Conservatory, and has performed across three continents.



Sara Ernst

Sara Ernst teaches at the University of Oklahoma in Norman. Her family has adopted a new kitty, Jingle, as a companion for her cat, Oreoboth are white and black, just like her piano.



Andrea McAlister

Andrea McAlister is a piano professor at Oberlin College and loves to read, hike, and play with her dog, Perry. She enjoys traveling around the world with her husband and two children.



J. P. Murphy

J. P. Murphy is Assistant Professor of Piano at the University of Oklahoma and is President-Elect of the Oklahoma Piano Teachers Association. He enjoys playing and teaching piano, and spending time with his Golden Retriever named Dottie.



Jessie Welsh

Jessie Welsh loves working with students of all ages and watching them discover the joy of making music at the piano. She works at Western Kentucky University and enjoys outdoor activities with her family.

discover

Now!

Now & Then

Ebony Music Sponsors the Annual Ebony Prize

Leah Claiborne

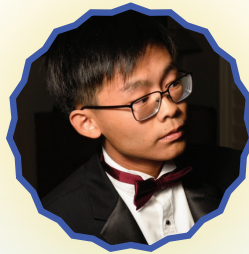
Ebony Music Inc., founded in 2021 by Leah Claiborne, sponsors the annual **Ebony Prize** at the Music Teachers National Association's Competition every March. Ebony Music encourages students and teachers to incorporate piano music by Black composers in their repertoire and to perform it at the highest level. The prize is awarded at three levels—junior, senior, and young artist—to a competitor who gives the best performance of a piece by a Black composer. **Visit ebonymusic.org to learn more.**

Let's hear from the 2023 Winners!



"Exploring the exquisite works of Black composers has been an exciting experience for me. Studying their pieces has granted me an insightful understanding of the background and context of their music."

Christina Sung
Junior Division Winner



"When I first heard 'Summerland,' I was mesmerized by the beautiful blend of classical melodies and jazz harmonies. I believe there are so many hidden gems in works by Black composers, all waiting to be swept up into the front page of the classical world."

Jonathan Zheng
Senior Division Winner



"It's such a privilege for me to play music by a composer who is the same race as me. Classical music has a rich history of music with many different races and nationalities. It's important that this music is heard."

Lewis Warren Jr.
Young Artist Winner

Hear
Here!



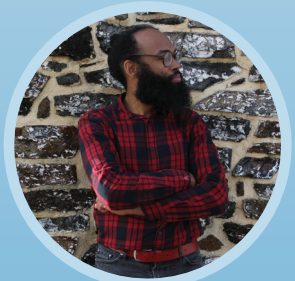
Listen to Christina Sung
play *Summer Moon*
by Florence Price.



Listen to Jonathan Zheng
play "Summerland"
from *Three Visions*
by William Grant Still.



Listen to Lewis
Warren Jr. play
Etude II: Fugue for 4 Voices
by Anthony Green.



Now & Then

100 Years of George Gershwin's *Rhapsody in Blue*!

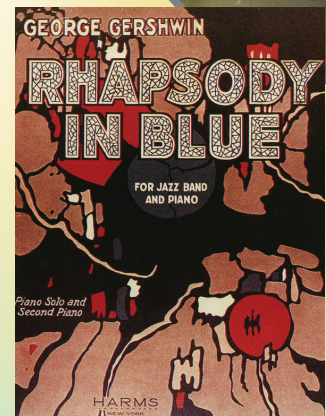
Rhapsody in Blue, George Gershwin's composition for solo piano and jazz band, celebrated the 100th anniversary of its premiere on February 12, 2024, with concerts around the world, in cities including New York City, Paris, Munich, Vienna, Las Vegas, Philadelphia, Memphis, and San Francisco.

Did you know that Gershwin almost didn't compose the now-famous piece? Paul Whiteman, a popular bandleader in the 1920s, asked Gershwin to compose a work to be performed at his 1924 concert "An Experiment in Modern Music" in New York City. The concert was to showcase how jazz, a genre that was growing in popularity, could be integrated into the world of classical music. Whiteman approached Gershwin about writing a "jazz concerto" for the program, but Gershwin turned down the request, thinking he wouldn't have enough time to compose a work before the premiere.

That all changed when his brother, Ira, opened up the *New York Tribune* newspaper, which announced to its readers that George was busy working on the jazz concerto for the concert! Gershwin immediately spoke with Whiteman, who convinced George to quickly write *American Rhapsody*, now known as *Rhapsody in Blue*. Another musician, Ferde Grofé, created the parts for Whiteman's band based upon Gershwin's musical ideas. Gershwin himself played the piano part, which he improvised during the world premiere. This last-minute composition was a huge success and has become one of the most beloved pieces in piano repertoire.

Then!

George Gershwin
(1898–1937)



Cover of the Original
Sheet Music

Hear Here!

The score for the piano part was eventually written out, and pianists around the world have performed this piece with orchestra or big band. Some pianists, however, choose to improvise on Gershwin's ideas like he did at the premiere in 1924.



Listen to Gershwin's fully notated score performed by Yuja Wang with the Vienna Philharmonic, conducted by Gustavo Dudamel.



Marcus Roberts is a jazz and classical pianist who has been blind since a young age and is known for his unique interpretation of Gershwin's work. Marin Alsop, American conductor, recently directed *Rhapsody in Blue* with the Marcus Roberts trio and the Philharmonia orchestra in London. In an interview printed in the concert booklet, she explained, "I didn't want to just play that piece again, I wanted the audience to hear it in a different way. So I invited Marcus Roberts and his Trio to play. Some of it's improvised. But what's interesting is that when Gershwin premiered this piece, he didn't write out any of the piano cadenzas at all. He just wrote in the score: *Watch George.*"

Listen to an improvised performance by Marcus Roberts and his jazz trio (piano, bass, and drums), with the orchestra conducted by Seiji Ozawa.



FAST FACTS ABOUT the Brain



The average brain weighs around **3 pounds**.

How big is your brain?

Put your two fists together, lining up your thumb and middle knuckles; that's a good estimate!

You have an average of **6,000 thoughts a day**.



Signals through your brain and nervous system can travel up to **268 miles per hour**—wow, that's fast!

The brain uses **20%** of our body's energy.



Your brain has 100,000 miles of blood vessels, which is enough to **circle the earth about four times**!

Your brain has the ability to store **unlimited** amounts of information.



The human brain can generate up to 23 watts of power—enough to **power a light bulb**.

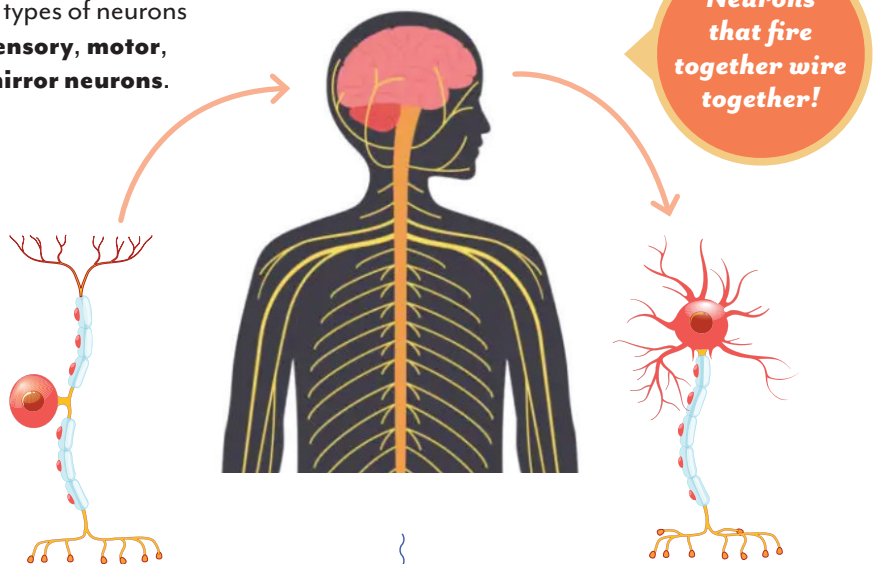
HOW WE LEARN:

Your Amazing Brain at Work

What is a Neuron? Neurons are tiny messengers in your brain that help you think, move, and feel. Humans have approximately **100 billion neurons**, which means we have an infinite number of ways to send and receive information.

When we learn something new, messages travel from one neuron to another, and the neurons “fire” together. When neurons fire together repeatedly, the neural connections become stronger and faster. This is why your teacher asks you to repeat passages for accuracy. A piano solo that was difficult at first becomes easy to play—all because you taught your neurons to fire together!

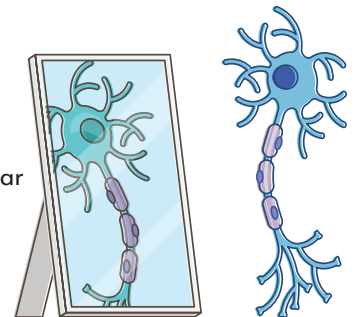
Three types of neurons are: **sensory**, **motor**, and **mirror** neurons.



Sensory neurons bring information **to the brain** and help us experience the world through our senses—sight, hearing, touch, taste, and smell. Pianists use sensory neurons to feel the keys under our fingers.

Motor neurons send information **away from the brain** and tell your muscles what to do. The more we practice, the better our motor neurons become at controlling our movements.

Mirror neurons fire when we move our bodies and also when we watch another person complete a similar task. This means that our brains are learning even when we watch someone else play a piece of music!



Did you know?

Neural pathways created at the piano can be long lasting. Some people who suffer from severe memory loss can still sit down and play pieces they learned long ago.

explore

Have you ever wondered how your brain can learn just a single note on the staff, let alone all the notes, rhythms, and musical terms in music?

Let's explore the incredible process of learning.

PATH TO MEMORY

1

2

3

4

1. STIMULUS:

A stimulus is something we notice through our senses. When you hear music, for example, your ears send a message to your brain saying, "Listen to those interesting sounds!"

2. ATTENTION:

You can't pay attention to everything, so your brain gives priority to what it thinks is most important. We usually pay attention to things that are interesting, exciting, or intriguing. We also give attention to anything that is new in our environment. If you hear a loud, unexpected noise, your attention will naturally be directed to finding out its source.

3. WORKING MEMORY:

If you give a stimulus attention, that information is moved into working memory. We can only hold five to nine pieces of information in our working memory at one time, but "chunking," or combining information, allows us to remember more. For instance, the notes C - E - G could be read as a C major triad instead of as three individual notes. We need to practice or rehearse the information in working memory, or it will be forgotten.

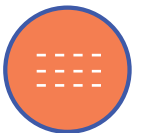


Circle each set of four eighth notes. Seeing the notes as a chord instead of individual notes is an example of "chunking." Can you label the chords? Four chords is a lot less to remember than sixteen individual notes!



4. ENCODING AND LONG-TERM MEMORY:

After repeated practice in working memory, the brain "encodes" and stores information in long-term memory. This storage space isn't just one place, like putting books on a bookshelf. Instead, memory storage is like a spider web, in which the new learning connects information and experiences already stored in long-term memory. The more connections the web contains, the more ways you have to remember and recall information.



Think of things that you have learned so well that you can do them with little effort: tying your shoes, riding a bike, and reading music. The large web of connections in your brain helps you remember how to do these things easily!



Inside the Pianist's Brain

The brain has two hemispheres, which divide into four large areas called lobes, and a smaller area called the cerebellum. We need every part of the brain to play our instrument! See how we use our brains to create music at the piano.

BRAIN BREAK:

Sitting for long periods of time can affect the ability to concentrate. Exercise will increase oxygen in the bloodstream, which will help neurons fire. Stand up and take a full body stretch before reading the next page.



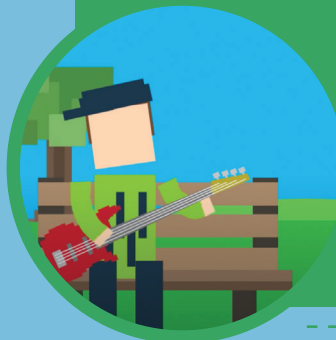
Did You Know?

Researchers have discovered that music can help us feel happy and calm, as well as connect us to another person's emotions. It can also help us process negative feelings like sadness and anger so that we are able to deal with frustration in a positive way. We can also use music to help reduce our feelings of loneliness.



WATCH THIS!

*DISCOVER
how playing music
impacts the brain.*



- The **prefrontal cortex** is located in the frontal lobe and controls our ability to solve problems, schedule practice time, and plan musical goals.
- The **motor cortex** is also located in the frontal lobe. This area helps us with physical movement needed to play an instrument.

FRONTAL LOBE

PARIETAL LOBE

- The **sensory cortex**, located in the parietal lobe, helps pianists feel the keys, and sense where our hands are on the piano.

Place your hand in a C position and close your eyes. Ask your teacher or friend to call out notes within the position. Can you play them without looking at your hand? Can you jump up an octave without looking?

TRY THIS

TEMPORAL LOBE

The temporal lobe is home of the auditory cortex, hippocampus, and amygdala.

- The **auditory cortex** processes sound. Studies have shown that musicians have a larger auditory cortex than non-musicians.
- The **hippocampus** is essential for long-term memory. The hippocampus makes it possible to remember and reflect on past musical experiences.
- The **amygdala** is responsible for the range of feelings and emotions experienced when listening to music.



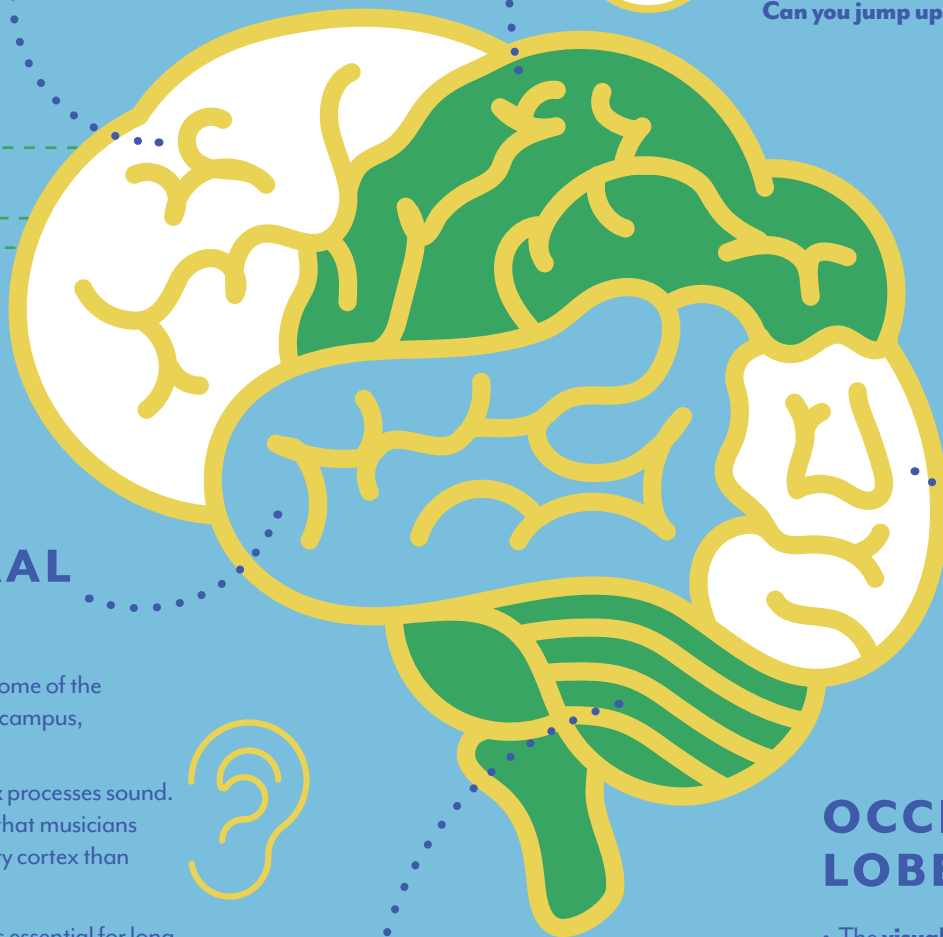
OCCIPITAL LOBE

- The **visual cortex** is located in the occipital lobe and processes what we see. The visual cortex is active when pianists read music, but it is also active when watching videos of ourselves performing.



CEREBELLUM

- Latin for "little brain," the **cerebellum** is located near the brainstem and coordinates movement and balance.




Strange but True:

Forgetting Helps You to Remember

Have you ever returned to practice a piece only to find that you have “forgotten” what you had learned in the previous practice session? After you step away from the piano, neurons that were firing together during your practice get set aside, and other neurons activate to help us through the rest of the day. Our neurons “forget” because there are new thoughts and activities to attend to—there is so much going on in our lives! When you come back to the piano, your neurons have to “remember” what happened in the last practice session, which takes effort.

Retrieval: *Why it should feel hard*

The act of retrieving information (remembering) after a period of forgetting strengthens the neural connections, which makes recall easier each time. Spacing out our repetitions and practice sessions will give us many opportunities to forget and retrieve. The process of retrieving or re-learning—while often difficult and frustrating—is a normal and necessary part of the learning process.



The rest between practice sessions allows the brain to file away the new skills, and the process of remembering makes the learning more permanent. If we forget and recall many times, the information is eventually stored in our long-term memory.



Brain Break!

The brain never rests, but your body needs to! Rest and sleep allow our neurons to do important work that can't be done when the brain is busy practicing, studying, or using technology. To keep your brain healthy, schedule time for rest during your day and get plenty of sleep at night.

HOW TO GIVE YOUR PRACTICE

A BRAIN BOOST

There are two practice methods that can help us take advantage of the forgetting and retrieving process.

Interleaved practice means to rotate through a series of different sections or pieces multiple times.

Spaced practice means to return to the same goal or piece after long breaks away from the piano.

Steps for Interleaved Practice:

A simple way to include interleaved practice in your daily routine is to divide up your skills and pieces and practice them back-to-back in short bursts.

1. Select four skills, sections, or pieces that you are working on in your lessons.
2. Fill in the interleaved grid, noting which practice item goes with which color.
3. Set a timer for five minutes and practice the red item.
4. When the timer goes off, reset it for five minutes, and move on to the yellow block.
5. Repeat the process and play the green and blue blocks. Continue moving through this cycle until your practice time is complete. Did this feel harder or easier than practicing each section for a longer period of time?



COLOR	SKILL, SECTION, or PIECE	GOAL
Red		
Yellow		
Green		
Blue		

Steps for Spaced Practice:

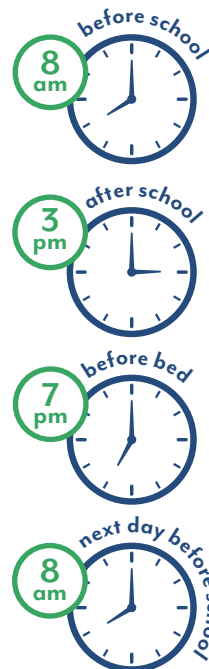
One way to include spaced practice in your day is to practice the same material multiple times throughout the day.

1. Select a specific section or piece and a clearly defined goal.

Section / piece to practice: _____

Goal: _____

2. Schedule three times in your day to practice this goal for 10 minutes. You may want to choose a time before and after school, and again before you go to bed.
3. Practice with the same goal in each practice session. You may feel like you've "forgotten" the work from your earlier practice, and that is normal! The process of remembering will actually help you learn the music more quickly and confidently.
4. Return to this learning after a night of rest. How have you progressed?



FUN FACT

Gyri and sulci: these are names given to the ridges and folds in the brain. Gyri and sulci give the brain a larger surface area and are found in large mammals. Small mammals like mice have smooth brains.

play

VARIATIONS on a Theme in Dorian



Chee-Hwa Tan

Chee-Hwa Tan composed this piece as a **tribute** to **Frances Clark**, who was famous for training pianists how to teach children. Frances strongly believed that **everyone** can play and create music.

As if swaying in the breeze ♩ = 88

Theme Dm 5 Am C

p
pedal as needed

Variation 1

mp

Variation 2 LH over

mf

LH over LH over LH over

rit.
LH over

Piano Inspires Kids readers can go to kids.pianoinspires.com/explore/activities/ to create their own variation of Chee-Hwa Tan's theme. Share your variation at kids.pianoinspires.com/submit. Your variation might be featured in a future issue!

How did



CHEE-HWA TAN

create this piece? ~~~~~

The first eight measures are the theme, or main melody.

Tan used the initials of Frances Clark's name with an **F-C motif** (short musical idea), twice in a row in the right hand, to start the theme.

Each variation is based in some way on the theme, while also having unique qualities. In Variation 1, there are more notes in the right hand. In Variation 2, the figures become cross-hand lines, using the left-hand notes from the theme. Find and circle the F-C motif in Variations 1 and 2.

Tan used a **Dorian** scale; Dorian is a modal scale, which means a scale beyond major and minor that is built from a unique pattern. Notice how this piece uses no sharps or flats, like C major, but the tonic (home note) is D—every section ends on D. To play a Dorian scale, play from D to D on the white keys. It has a minor sound with an unexpected twist. In this Dorian scale, one half step is marked, between E and F. Find and mark the other half step.



Composer,
Chee-Hwa Tan

MEET THE COMPOSER CHEE-HWA TAN

“The piano inspires me to express my feelings and to use it to tell ‘sound stories’ that can make others laugh, cry, and connect to their own emotions.”

Where were you born?

I was born and grew up in Malaysia, a beautiful country in Southeast Asia with different ethnicities, flavors, sights, and sounds.

When did you start playing piano?

I started playing the piano when I was five years old. I loved the idea of playing but not the reality of practice, so there were tears for about two years, then I was hooked!

Did you compose and improvise as a child?

Composing and improvising were sadly not really encouraged in the music tradition in which I grew up. I have a memory of making things up at the piano when I was little, but then I transitioned to being an avid sight reader, gobbling up any music I was curious about, including pop music and whatever I wasn't supposed to be practicing!

What is the easiest and the most challenging for you when writing music?

The easiest part of composing for me is probably coming up with melodies. I get so many melodies in my head that I cannot differentiate or retain them! A challenging part of writing music is imposing limits upon myself so that my music has form, value, and is accessible for others to play. It's much easier for me to just sit down and improvise than to intentionally compose with specific criteria in mind.

Hear Here!

Listen to more of Chee-Hwa Tan's music on her YouTube Channel! Which one is your favorite piece from her collection of videos?



play

Spark your Creativity with Variation Form

Imagine you are playing the piano for a party, and the people dancing are enjoying the music you've picked. They are having so much fun that they don't want you to stop! Instead of repeating the music again, you improvise and play around with the tune. With each repetition, you get more and more creative and change the dynamics, switch the rhythm, add some flourishes and arpeggios—once you even flip the major chords to minor ones. This is the idea behind the musical form called “theme and variation.”

Composers have actually been writing in variation form for over 500 years.

Let's explore Beethoven's *Six Variations on a Swiss Song* in F major, WoO 64, to help get your creative juices flowing.

Andante con moto



During the Classical era, composers like Beethoven created variations that were based on a well known tune or the melody of another composer. The piece begins with the **theme**, or a simple statement of the melody harmonized with notes in the left hand. Then, the composer writes variations, re-imagining elements of the theme for each numbered **variation**. The variations usually get quite fanciful (and difficult!) by the end.



One of Beethoven's most famous works actually resulted from a call similar to this one (see bottom of p. 10) from *Piano Inspires Kids*. In 1819, Anton Diabelli wrote a waltz and invited many different composers to write variations. Beethoven's *Diabelli Variations*, Op. 120, was created as a result.

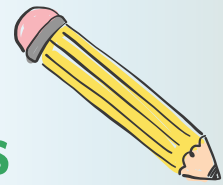


Hear Here!

Listen to *Six Variations on a Swiss Song*, WoO 64, performed by Alfred Brendel. Then complete the activities on the next page.

Beethoven's

VARIATION STRATEGIES



Variation 1

Look at all those triplets! To find the melody, circle the first note of every right-hand triplet. How has Beethoven changed this from the theme?



Variation 2

Now it's the left hand's turn to shine! In the first measure, circle all the dotted eighth notes. Notice how similar this is to the left hand of the theme.



Variation 3

Beethoven decided it's time to change it up. This is in F minor, which has ____ flats. To find the melody, look for the quarter-note stems in the right hand. Circle the one right-hand note that is now different (*HINT: it's now a flat!*)



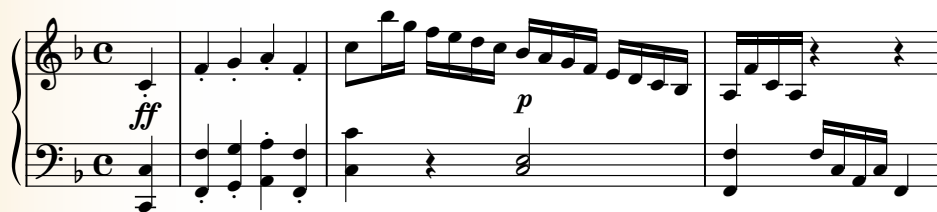
Variation 4

Circle the key signature; it's back to major. Beethoven wrote this fanciful variation using octaves and triplets, and this is marked *forte* and *staccato*.



Variation 5

Sempre dolce means _____. This is the most delicate variation, with long *legato* lines. Do you think the treble-clef melody still sounds like the theme?



Variation 6

Circle the dynamics. Beethoven wanted this final variation to be joyful and filled with flourishes—sixteenth notes, scales, and arpeggios. Be sure to listen to the end; are you surprised with how he ends this piece?

Fun Fact!

Symphonic Variations by Kaikhosru Shapurji Sorabji is the longest piano variation set ever composed. It has **81 variations** and takes **600 minutes** to perform. **That's 10 hours...wow!**

share

Reader Poll:

Celebrate Music in Our Schools!

Music in Our Schools Month (sometimes called "MIOSM") celebrates the importance of music education access for all children in the United States. Originally a one-day celebration in New York state, Music in Our Schools Month is now an annual national celebration every March, led by the National Association for Music Education. Students, parents, teachers, and school administrators are encouraged to organize events, activities, and performances during the month of March to raise awareness of the benefits of music education.

share!

Not all schools have the arts.

Music and other performing arts programs are at risk for being reduced or eliminated by administration and school boards. Reductions in the money given to schools by the government can cause school districts to make difficult decisions. Since the performing arts are often not included as subjects in standardized testing, some school districts choose to use their money for testing subjects. Music in Our Schools Month is a wonderful time to increase awareness of the importance of performing arts education.

Is music offered in your school?

Go to kids.pianoinspires.com/submit to tell us about your musical experiences at school.

AT MY SCHOOL, I AM INVOLVED WITH:

- ☐ Music Classes
- ☐ Band
- ☐ Jazz Band
- ☐ Orchestra
- ☐ Choir
- ☐ We don't have music in my school
- ☐ My school has music but I do not participate

Why does *Piano Inspires Kids* value music in the schools?

- Many students are only able to experience music education in school, and having music in schools gives nearly all students access.
- Students need to experience beauty in their lives, and one way to experience this is through music.
- Music making requires critical thinking, active listening, and self-reflection.
- Music education helps reinforce study habits and memorization skills.
- Learning an instrument can enhance hand-eye coordination and fine motor skills.
- Music making provides students the opportunity to be creative and individually express themselves.
- Large music ensembles, such as band, chorus, and orchestra, teach the importance of teamwork.
- School concerts are events that bring community members together.
- Both instrumental and vocal music can be used to explore and celebrate cultural traditions from around the world.

Why Do You Value Music in Your School?

Make sure your teachers and principals know how important music is to you and your school.
Encourage your school to celebrate Music in Our Schools Month!

A CLOSER LOOK AT School Music Programs

LEARNING PIANO DURING THE SCHOOL DAY

At **Andrew Jackson High School** in Kershaw, South Carolina, students can choose to take group piano courses. The class is in a room full of nineteen digital pianos that are all connected with headphones. There are classes for both beginners and students who have already studied some piano. Students can play music all together or in small groups, and students often practice on their own. At the end of each semester, students perform at a public recital.

"I enjoy the experience of it all. When I put on my headphones, I can tune the world out and focus only on my music." - **Cha' Mar**

"I recently enjoyed learning about the late, great composer Claude Debussy, and his life. We did timeline projects about composers' lives." - **Mackenzie**

"I had never played piano before this semester, so I had to learn a lot of basics before I could move on to more advanced things. Recently, I have begun to learn two real pieces, which is very exciting for me." - **Sophie**



Students Cha' Mar, Mackenzie, Sophie (from left to right) in their Group Piano Lab at Andrew Jackson High School.

Hunter Cox is the piano teacher at Andrew Jackson High School. In his spare time, he enjoys reading, playing chess, and playing with his dog, Schroeder.



SCHOOL ROCK ENSEMBLE INSPIRES STUDENTS

The Lakewood Project was formed in 2002 in the Lakewood City Schools, a suburb of Cleveland, Ohio. Called the "world's first high school rock orchestra," The Lakewood Project is made up of two electric string quartets, a ten-piece acoustic string orchestra, and a full rock band rhythm section. Members of this high school ensemble compose, arrange, and improvise in all genres of music from rock to jazz and classical. More than 80% of students who have played with the band continue to play and teach after they graduate, sharing their love of music with a new generation of young music makers.



"I joined the Lakewood Project as a freshman at Lakewood High School. Being part of this group was an extremely exciting opportunity for me. During my first year with the group, I met two pianists in the band. From them, I learned everything that I would need to take on the year ahead as the solo pianist in the group."

- **Jeremy, age 16**



Jeremy plays a keytar (a keyboard that is held like a guitar) in The Lakewood Project.

"The Lakewood Project has given students that ability to dream. They dream about being rock stars, movie composers, teachers, performers, or anything else that they can imagine because, as a result of this unique learning environment, they have the courage to try anything."

- **Beth Hankins**

Beth Hankins, director of the band, was a finalist for the 2017 Music Educator of the Year Grammy Award! She was one of only ten music educators in the whole country to be nominated.





Q:

**“I am required to play my music from memory at an upcoming festival.
How can I make sure my memory is secure?”**

BELLA, AGE 15

A:

Pianists have a lot to think about when we play music, and memorizing all of that information is a difficult task! Below are ideas for memory practice. See more tips from *Piano Inspires Kids* readers on the next page.

1 Learn your music in many different ways.

Memory will be most secure if we use all of our senses to learn, not just one. Here are a few ideas to get you started:

- Sing the melody while playing the accompanimental notes.
- Repeat passages while varying the tempi, dynamics, and rhythms.
- Mentally practice by closing your eyes and hearing the music in your mind. You might even move your hands to “air play” your piece.
- Listen to recordings and follow along in your music.
- Get out a pencil to mark the patterns and harmonies.

The more ways you “know” the music, the stronger your memory will be. What other strategies could you use?

2 Create memory sections.

Memorizing music in small sections helps our brains organize the information more efficiently. Sections could be based on the form of the piece, scale passages, or accompanimental patterns. Practice in one of these ways:

- Choose sections in a random order.
- Work from the last section and moving backwards to the first.
- Play sections that are similar.

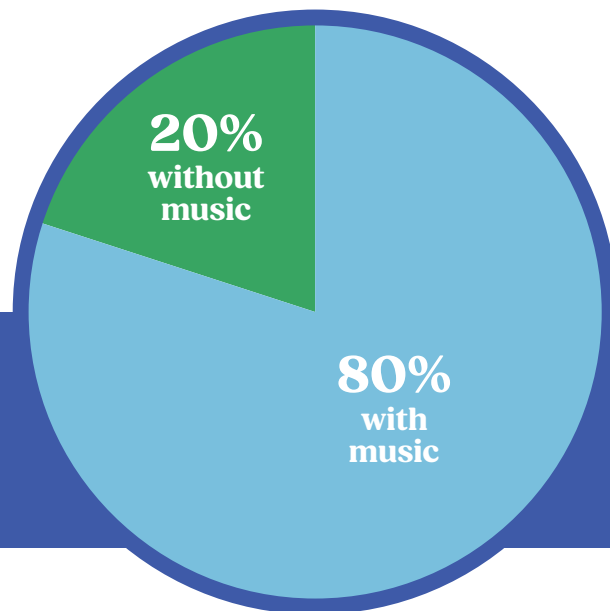
The more you mix it up, the stronger your memory will be.

3 Pay attention; listen to the music you are practicing!

This might seem obvious, but our minds can easily wander during practice time. If you find yourself mentally checking out, stop and refocus. This might mean intentionally choosing one specific practice goal, writing down distracting thoughts, or taking a five-minute break.

4 Practice performing.

Practicing to perform is not the same as practicing to learn. When you *practice to learn*, you focus on small sections, experiment with fingerings, and play at a variety of tempi. When you *practice to perform*, the focus is on musical goals and communicating with an audience. You can ask yourself, “How can I play this phrase expressively?” or “How softly can I play my final notes?” Listen with these goals in mind, and enjoy sharing your music with others!



In the Winter issue, we asked if you would rather perform with or without music.
80% of readers prefer to perform WITH music!

PIANO Inspires YOU!!!

How Do You Memorize Music?

I simply play the piece over and over again. The repetition is helpful for me.

- JASLYN,
AGE 13



When memorizing similar parts that are confusing, I give them one-word descriptive names, for example, “up-spooky,” or “up-clash.” I’ll say those names when I reach the troubling parts. Verbalizing those sections makes it harder to stumble, because I memorize them with not only my hands but also my words.



ANNA
AGE 11

First, I make sure I have the right notes and rhythms before I memorize; I don’t want to memorize an error! Next, I give a piece 10 minutes, daily, working on different sections. Then, I start playing the piece through. Last, I practice starting from different spots.



AVALYN
AGE 14

I memorize a piece by dividing it into smaller sections and playing each one repetitively until I have it down. It also helps me to memorize a piece if I spend some time studying it away from the piano before I practice.



NAOMI
AGE 14

NEXT ISSUE:

WHAT IS YOUR FAVORITE PIECE TO PLAY ON THE PIANO?
SHARE THE PIECE THAT INSPIRES YOU AT [KIDS.PIANOSINSPIRES.COM/SUBMIT](https://kids.pianosinspires.com/submit),
AND READ THE SUMMER ISSUE TO SEE IF YOUR PIECE IS FEATURED!

explore

Brain Myths

DEBUNKED

Over the years, several myths have developed that incorrectly explain how our brains work.

Let's debunk some of them!

10% myth: This myth claims that we only use 10% of our brain, which is definitely not true! With modern technology, scientists have used brain scans to confirm that **most of the brain is active all the time.**



The Mozart Effect: This myth started when a 1993 study found that individuals increased their spatial reasoning skills (the ability to think about and move objects) after listening to *Sonata for Two Pianos*, K. 448, by Mozart and that the effects lasted for 10–15 minutes. In the years that followed, other scientists conducted similar experiments and were unable to reach the same conclusion. While there is no evidence that this music will sharpen our reasoning skills, it's still a wonderful piece to listen to and perform!



Hear Here!

Listen to Anderson and Roe perform the *Mozart Sonata for Two Pianos*, K. 448.



Left Brain vs. Right Brain: You may have heard some people have a strong right hemisphere (the creative side) and others have a more dominant left hemisphere (the logical or mathematical side). It is true that individuals have their own strengths, but we need both right and left hemispheres to do most everything. *In fact, musicians have a more developed connection between the hemispheres than non-musicians!* The corpus callosum, a band of nerve fibers that sends messages from one hemisphere to the other, is often larger in musicians than non-musicians. We need our whole brain to create music at the piano!

Did You Know?

A brain freeze (an ice cream headache) is called **sphenopalatine ganglioneuralgia** and has been studied by scientists for decades.

Brain Break! Imagine a line that runs right down the middle of your body, between your eyes, through your nose, and all the way down between your two feet. This is your “midline” and, although we can't touch or see it, activities that cross this imaginary line help the two hemispheres of our brain work together. **Try these midline exercises:**

- Sit in front of middle C, and play bass clef notes with your right hand and treble clef notes with your left hand.
- Windmill your right hand down to touch your left toes. Then reach your left hand down to touch your right toes.
- With one hand at a time, draw a large, imaginary number 8 with your finger in front of your body. Make sure the right hand goes all the way over to your left side and vice versa!

What do you remember from this issue?

games -&- puzzles

- 1 This musical form is based on one main melody that is then recomposed in many different creative ways:**
 - a. theme and variation
 - b. melody and creation
 - c. sonata form
 - 2 This type of neuron sends information from the brain to our muscles:**
 - a. new neuron
 - b. motor neuron
 - c. sensory neuron
 - 3 The modal scale made of the white keys on the piano from D to D is called**

 - 4 True or False:**

When compared to non-musicians, musicians have been shown to have a larger corpus callosum (the section of the brain that connects the hemispheres).
 - 5 The average human brain weighs:**
 - a. 9 ounces; b. 1 ½ pounds; c. 3 pounds
 - 6 True or False:**

All public schools in the United States have music programs.
 - 7 What famous American work for piano and jazz band premiered 100 years ago?**
 - a. *Rhapsody in Blue* by Gershwin
 - b. *Piano Concerto in F Major* by Gershwin
 - c. *Rhapsody in Blue* by Copland
 - 8 In this style of practice, the same section is practiced in the morning, afternoon, and evening:**
 - a. spaced practice
 - b. grouped practice
 - c. interleaved practice
 - 9 In which state was Music in our Schools Month first celebrated?**
 - a. California; b. New York; c. Texas
 - 10 The auditory cortex, which processes sound, is located in which part of the brain?**
 - a. frontal lobe; b. occipital lobe; c. temporal lobe

Complete the Patterns Below



Hint: Playing these letter names at the piano might help!

C E G B D _ _
F E D G F E A _ _



Gilles Comeau is Director of the Music and Health Research Institute and Professor in the School of Music at the University of Ottawa in Canada. He is a pianist and award-winning researcher in music pedagogy and the brain. He believes in the power of music and its impact on health and well being.

FIVE QUESTIONS WITH GILLES COMEAU

5

What is your musical background?

1

I took private piano lessons from a young age. When I was 17 years old, I did my first training course on how to teach piano. I immediately knew that I had a passion for piano teaching and that it was something I would like to do for a very long time.



How did you get interested in music-related research?

2

As a piano student, I thought that the main options in music were performance and teaching. I spent more than ten years at the university, studying different aspects related to learning and teaching music. But I eventually discovered that my options were much broader and that there was a whole world to discover where music and scientific research can be combined to produce exciting new knowledge.

What topic did you first begin researching?

3

My fascination with how a person learns and acquires music skills was the initial motivation to start doing research. When I was hired as a professor at the University of Ottawa, I was very fortunate to establish the Piano Pedagogy Research Laboratory to study scientifically how a pianist learns music and develops performance skills. I quickly partnered with experts in psychology, neuroscience, and engineering to apply their research methods to the field of music learning and teaching.

4

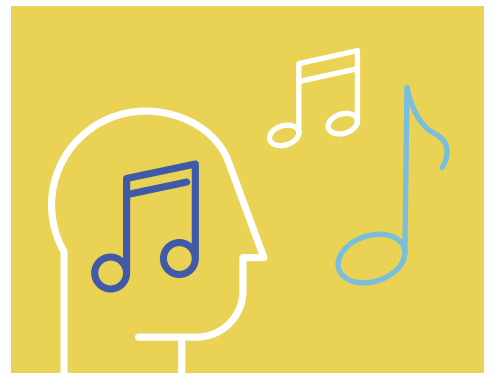
Which topics interest you today?

Gradually, my research interests gravitated towards musicians' health. I was witnessing how many music students were having physical pain and injuries related to the practice of their musical instruments, and I was observing that many had performance anxiety. In more recent years, I became interested in the impact of music on health and wellbeing, to research how music can improve the lives of individuals and communities.

What is your advice for aspiring musician-scientists?

5

I want music students to know that they can integrate their love of music with different disciplines: music and psychology, music and neuroscience, music and health sciences, and music and technology. I am always very happy when students discover that they can pursue both, their passion for music and their passion for science.



The Scientist as Musician/ The Musician as Scientist

Albert Einstein (1879–1955): Einstein was born in Germany and is known as one of the most important physicists in history. He coined a number of theories to help explain the world around us, but his name is most associated with the *Theory of Relativity* and the formula $E=mc^2$. What many people don't know is that Einstein was also a music enthusiast. He played the violin, was taught the piano by his mother, loved Mozart, and said in an interview that if he had not pursued science, he would have made music his career.



“Life is like a piano. What you get out of it depends on how you play it.”

–Einstein



Katherine Johnson (1918–2020):

Johnson was a mathematician who worked for NASA, the U.S. space agency. She was involved in making lots of complicated calculations, and her innovative work helped navigate many space crews on their missions including sending astronauts to the moon! Johnson was also very involved in music, played the piano, and sang for her church choir.

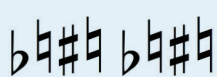
Sir Brian May (b. 1947): May is best known as the lead guitarist for the iconic British rock band *Queen*, a band that has performed all around the world and is known for hits like *Bohemian Rhapsody* and *We Will Rock You*. Prior to his music career, May completed a degree in physics, and he later returned to his education to complete his PhD in Astrophysics. He has worked with NASA and is co-founder of “Asteroid Day,” an annual event that brings awareness to asteroids and the risks they pose to the planet.



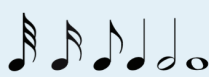
Answers to the quiz on page 19: 1. a) theme and variation, 2. b) motor neurons, 3. Dorian, 4. True, 5. c) 3 pounds, 6. False, 7. a) *Rhapsody in Blue* by Gershwin, 8. a) spaced practice, 9. b) New York, 10. c) temporal lobe



Pattern 1 answer



Pattern 2 answer



Pattern 3 answer

C E G B D F A
F E D G F E A G F

Pattern 4 & 5 answer



Pattern 6 answer

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