

Musical Time Periods: The Renaissance Period

Math (from AZ Common Core Standards)

Grade 4 No. 5: Generate and analyze patterns/Grade 5 No. 3: Analyze patterns and relationships.

Grade 6: Ratio and Proportional Relationships (No. 3d: Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities).

Music

Strand 2 Concept 1 PO 1 (Grade 6): Identifying/describing ways in which the principles and subject matter of other disciplines are related to music.

Strand 2 Concept 2 PO 1 (Grade 7): Identifying the contributions of significant composers, performers, and important pieces.

Strand 2 Concept 2 PO 1&2 (Grade 5): Describing the historical/cultural context and/or influence of music on daily life, culture, politics, etc.

Art

Strand 1 Concept 2 PO301: Identify and experiment with materials, tools, and techniques appropriately and expressively in his or her own artwork.

Strand 1 Concept 5 PO301: Identify successful aspects of his or her own artwork and possible revisions.

Strand 2 Concept 2 PO303: Describe how scientific and technological advances influence the materials, tools, and techniques used by artists.

The Renaissance Period (1400-1600 AD)



Much of the inspiration for music in the Renaissance period came from ancient Greek approaches to the arts.

In the early 1400s, many events caused people's perception of the world around them to change. The Church split into two separate denominations of Christianity in 1417, the Hundred Years' War between England and France ended in 1453, and many scholars moved to Italy when the Ottoman Turks defeated and took over the major city Constantinople in 1453. This event directly influenced the world of art and music in Europe: when the scholars moved to Italy, they brought with them ancient Greek plays and histories. Europeans came across these documents, and were fascinated by the knowledge and drama of the eloquent Greek writings. The scholars also taught Europeans the Greek language so they could decipher the documents.

These changes in the Europeans' world partly influenced an ongoing intellectual movement called humanism, the study of all things pertaining to knowledge, such as grammar, rhetoric, poetry, history, and moral philosophy. Humanistic studies prompted Europeans to explore new approaches to the arts as well. Before the Renaissance, people lived in a period called the Middle Ages (or the Medieval times), a time characterized by the monarchy and feudal systems, chivalry and romantic ideals, and focus on conservative Christian faith. The humanism movement of the Renaissance, however, caused Europeans to reject the romantic themes of the Middle Ages and to look more to realistic and intellectual ideas.

The Europeans' exploration of these texts and new ideas reached into their approach to art and music. They embraced the ancient Greek and Roman idea that something natural and simple was also very beautiful.

Renaissance artists boldly depicted the human body as a work of art in itself: sculptors like Donatello

portrayed Biblical heroes in dramatic but stately positions, such as David after he defeated the giant Goliath. Painters also focused on realism and a sense of splendor in their works, such as Leonardo da Vinci's *Mona Lisa*.

The lute was a popular stringed instrument that preceded the modern guitar, and was used to play music at home for enjoyment.



Music, of course, was also heavily impacted by the new ideas, particularly in the way it was written. The ancient Greeks and Romans said that music should be part of everyone's education, so people of the Renaissance

Key Composers of the Renaissance Period

Josquin des Prez – choral music

Giovanni Pierluigi da Palestrina – sacred music

Claudio Monteverdi – vocal music & madrigals

embraced this idea, and sought to make music much more pleasing and personal than it had been in earlier centuries. The French composer Josquin des Prez was famous for connecting words and music perfectly in ways that were incredibly beautiful. Josquin was so well-known in his time that music publishers and copyists put his name on works that he did not actually write.

The invention of the printing press in 1436 helped printed music spread throughout the social classes and throughout Europe, allowing more people to take part in making music.

Printed music was more accessible and significantly cheaper than handwritten copies. Books of *madrigals*, or Italian poetry set to music with lute accompaniment, provided young men and women the chance to make music at home, alone or with friends. Other stringed instruments, such as the violin and viola, and the harpsichord were invented in the Renaissance and were used to accompany dance music at parties. In the Church, music had separate styles and functions that followed the split in 1417. The Catholic Church maintained the masses (excerpts of the Bible put to very serious music) from the Middle ages, which were still sung in Latin and had separate parts for the priests and the people, while Martin Luther's followers sang hymns in the native language of the country (for example, German in Germany) so that the people could understand them and be united in their worship through singing.



The Renaissance period set the stage for a music world that would undergo constant transformation over the next four centuries, and beyond. Without inventions and innovations from this period, printed and recorded music might not even exist today!

Johannes Gutenberg's invention of the printing press made producing music easier, faster, and cheaper.

Lesson Plan 1: Renaissance Period – Fibonacci Sequence and Ratios

Grade Level: 4-8

Ideal classroom: General classroom; to be used in on-going lessons on the Renaissance period or math theories

Subject areas: Math, Art, Music

Standards:

Math (from AZ Common Core Standards):

Grade 4 No. 5: Generate and analyze patterns/Grade 5 No. 3: Analyze patterns and relationships

Grade 6: Ratio and Proportional Relationships (No. 3d: Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities)

Music:

Strand 2 Concept 1 PO 1 (Grade 6): Identifying/describing ways in which the principles and subject matter of other disciplines are related to music.

Strand 2 Concept 2 PO 1 (Grade 7): Identifying the contributions of significant composers, performers, and important pieces.

Materials:

-whiteboard/chalkboard/poster board

-Fibonacci sequence video: [click here to watch](#) (cue to 13:44, end around 14:50)

-Student journals/notebooks

-Piano, or a clear image of piano keys (as shown below)



-CLEAR plastic cups (two for each group of students)

-red, yellow, and blue tempera paint

-plastic drinking straws

-wax paper

-plastic spoons for mixing

-paintbrushes

-watercolor paper

-rulers

-Sharpies

-paper towels

-water

Objective: Students will be able to demonstrate understanding of ratios through mixing different mediums.

Procedure:

1. Explain to students, *In the Renaissance period, scholars and artists used math principles to understand and respond to their world. The Fibonacci sequence is essentially an ancient number sequence, but was studied and discussed by Leonardo Fibonacci in the 1200s. It is a number system based on ratios that represent natural order in the world. Here is a short video clip explaining how the sequence is derived* (show 13:44 – 14:50 of Youtube video as mentioned in **Materials**)

2. Review the ratio concept described in the video on a whiteboard/chalkboard/posterboard: show students how the sequence is derived by writing:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144...

Show students that adding one of the numbers to the previous number produces the subsequent number in the sequence. Have students copy the information in student notebooks or journals.

3. Explain to students, *we find number sequences in our world every day. Do you remember what shape the Fibonacci sequence numbers formed from the video? (snail/spiral) Even music contains the Fibonacci sequence:*

A piano contains 13 keys in an octave (C to C), but contains 8 white keys and 5 black keys in that octave. The 5 black keys are separated in groups of 2 and 3. [Visiting a music room may be helpful so that you can play the octave on the piano, but simply displaying a piano keyboard with a projector will also be helpful]

The famous classical composer Mozart loved math equations and number sequences, and some people say that because he wrote math problems in the margins of some of his compositions, he might have used the Fibonacci sequence to write music. Even if he did not, his music is organized in clear structure, and nearly all composers for all time have written music in forms. The songs you listen to today even have form, where there are different verses and a chorus, and perhaps a “bridge” of new music different from the verses or chorus. Can you think of songs that have forms such as these? Have students identify songs they know that have verses and a chorus. If possible, have them share a few of the songs from Youtube or Vimeo.

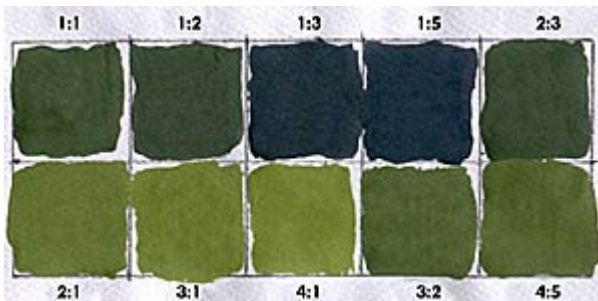
4. Explain to students, the Fibonacci sequence establishes ratios, which comparisons using numbers. We can compare the number of girls and boys in our class with a “numerical ratio”. Ask students to count how many girls are in the class, and how many boys. Write these numbers on the board as:

Girls: ____
Boys: ____

Then explain that we can say that the number of girls to boys is ____ to ____, or $\frac{\text{girls}}{\text{boys}}$.

5. Today we are going to see these ratios come to life. You will mix two primary colors using different ratios of each color to see how the colors change according to the ratios. Separate students into groups of two or three. Distribute all art supplies (it may be helpful to put paint in the cups prior to the lesson in order to save time).

- Have students measure and draw a grid of ten 1”x1” squares, as shown below. Have students write the ratios above or below each square, also as shown.



- have students use rulers to measure one half-inch from one end of the plastic straw, and mark the measurement with a Sharpie.
- Show students how to suction “one half-inch” of paint from the cups by placing the finger on the top end of the straw, and dropping the paint onto the wax paper. Demonstrate how to mix the paint samples so that a new color is created. Each suction of paint represents one unit (i.e. 1:2= one suction of one color, and two suction of a second color).
- Once students draw paint and mix to achieve a color, have them use the paintbrush to paint the new color onto the ratio sheet in the appropriate box. **Caution students to clean the paintbrush and the straw very thoroughly between each ratio sampling so that the correct ratios of colors are obtained.

6. Have students write a paragraph detailing their findings in journals, including:

- Were they surprised at the colors they obtained?
- How did the colors turn out?
- Talk about their reactions to the colors they obtained by mixing only two colors.

Assessment: Students will mix paint colors in different proportions to observe and understand ratios practically.

Lesson Plan 2: Renaissance Period – The Printing Press

Grade Level: 5-10

Ideal classroom: General classroom; to be used in on-going lessons on the Renaissance period

Subject areas: Art, Music

Standards:

Art:

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Strand 2 Concept 2 PO303: Describe how scientific and technological advances influence the materials, tools, and techniques used by artists

Music:

Strand 2 Concept 2 PO 1&2 (Grade 5): Describing the historical/cultural context and/or influence of music on daily life, culture, politics, etc.

Materials:

-whiteboard/chalkboard/posterboard

-Calligraphy pens ([click here to purchase](#))

-Ivory calligraphy paper (contains 50 sheets, students will need several sheets each; [click here to purchase](#))

-[Optional: feathers to tape onto calligraphy pens for realistic effect ([click here to purchase](#))]

-Alphabet rubber stamps (you will need several sets so that students can use multiples of the same letter simultaneously; i.e. 5-6 sets per class; [click here to purchase](#))

-rubber brayer ([click here to purchase](#))

-black ink block ([click here to purchase](#))

-packaging tape

-stopwatches/timers

-Printing Press Data Worksheet (see attachment)

-Sermisy, *Tant que vivray* ([click here](#) to view)

-score for *Tant que vivray* ([click here](#) to view and print)

Objective: Students will be able to demonstrate understanding of the impact of the printing press.

Preparation:

1. Select three areas of the classroom to use as stations, or move desks in the classroom to form stations. Label stations 1, 2, and 3.
2. Set calligraphy paper at all three stations. Set calligraphy pens at station 1, some sets of alphabet stamps and two ink pads at station 2, and the rest of the alphabet stamps, ink pads, and packaging tape at station 3.
3. For Station 3, select the alphabet stamps for all of the letters of the phrase “The printing press”. Tear off a piece of packaging tape large enough to span the length of the letters, place it sticky side up, and press the stamps wood-side down to assemble a word. Wrap the remaining edges of the tape around the word.
3. Write “The printing press” on the board.

Procedure:

1. Assign students into pairs. Have students obtain calligraphy pens, paper, and a timer/stopwatch from Station 1, and return to their desks. Have students use calligraphy pens to *very carefully and neatly* write the phrase “The printing press” ten times on a piece of calligraphy paper (they should be able to stay on one side of the sheet). Have the other partner in the group time the student using a stopwatch or timer. Remind students that the goal is not speed, but quality. Have students switch after one finishes writing. Ask students to record their times and reactions on the Printing Press Data Worksheet.
2. When students have finished writing, have them move to Station 2. Have students use individual letter stamps and black ink to compose the phrase “The printing press” ten times, as cleanly as possible, on calligraphy paper (they can use multiple sheets if needed). Have students time each other again, and document their results and reactions on the Worksheet.

3. When they have finished, have students move to Station 3. Students will “print” the words of the phrase onto their calligraphy paper ten times using the pre-taped alphabet blocks. Have students use the brayer to roll black ink onto the words, and stamp them onto their pages. Have students time each other again, and document their results and reactions on the Worksheet.
4. Bring students back into a group setting, and ask them to share some of the results from their tests. Explain to students that they have just experienced several hundred years of copy-making evolution. In 1439, a man named Johannes Gutenberg invented a machine called the printing press. This invention changed people’s lives, because it allowed more copies of texts to be produced more quickly. The printing press was operated just like the last station of our activity: ink was applied to molds of letters, which were assembled into words, which were then pressed onto paper. The invention had a major impact on the Renaissance Period, which took place between 1400 and about 1600. Let’s see it in action: play printing press Youtube video ([click here](#) to view).
5. Ask students, can you think of other documents that might have been copied? (answers may include books, letters, legal documents/government papers, sheet music). Emphasize music: musicians during the renaissance also traveled a great deal, so in addition to producing more copies of music for more people to use, the printing press allowed music to be spread all over Europe, and later, the world. We, in America, have paper copies of music today because of Gutenberg’s printing press. Let’s listen to some Renaissance-period music with a copy of music. Try to imagine what it would have been like to receive this printed music for the first time, instead of handwritten music.
6. Distribute copies of the music for students to view, and play Youtube video of Sermisy’s *Tant que vivray* ([click here](#) to view).
7. Have students share their reactions to listening and “following along” with the music.

Assessment:

Students will perform writing and stamping operations that highlight the evolution of the printing press in order to understand its importance and impact on culture.

Students will demonstrate understanding of the impact of printed music through verbal discussion.