



# Super-Heroes of the Orchestra

## TEACHER GUIDE

THIS BELONGS TO: \_\_\_\_\_

## Dear Teachers:

The *Arkansas Symphony Orchestra* is presenting *SUPER-HEROES OF THE SYMPHONY* this year to area students. These materials will help you integrate the concert experience into the classroom curriculum. Music communicates meaning just like literature, poetry, drama and works of art. Understanding increases when two or more of these media are combined, such as illustrations in books or poetry set to music ~ because multiple senses are engaged.

### **ABOUT ARTS INTEGRATION:**

As we prepare students for college and the workforce, it is critical that students are challenged to interpret a variety of 'text' that includes art, music and the written word. By doing so, they acquire a deeper understanding of important information ~ moving it from short-term to long-term memory.

Music and art are important entry points into mathematical and scientific understanding. Much of the math and science we teach in school are innate to art and music. That is why early scientists and mathematicians, such as Da Vinci, Michelangelo and Pythagoras, were also artists and musicians.

This Guide has included literacy, math, science and social studies lesson planning guides in these materials that are tied to grade-level specific Arkansas State Curriculum Framework Standards. These lesson planning guides are designed for the regular classroom teacher and will increase student achievement of learning standards across all disciplines. The students become engaged in real-world applications of key knowledge and skills. **(These materials are not just for the Music Teacher!)**

**ABOUT THE CONTENT:** The title of this concert, *SUPER-HEROES OF THE SYMPHONY*, suggests a focus on musicians/instruments/real and fictional people who do great deeds to help achieve a common goal. Just like in the movies and in real life with great military and societal figures, a hero can come in many forms. Some are readily apparent, famous, and recognizable, while others do their work quietly in the background, yet to great effect.

In an orchestra, there are dozens of different instruments that can combine together to create the distinctive sound of a symphony orchestra. Some instruments, like the violin, cello, and oboe, play almost all the time and are at the forefront of the sound. Others do not play as many notes, but their contributions are just as crucial.

This program intentionally features some of the 'unsung' heroes of the orchestra. In so doing, this program can teach students how to listen and hear in a whole new way. It can also demonstrate that a hero can appear in any corner of one's life, visible or not, and that everyone who acts like a hero may not turn out to be one. There are many thought-provoking questions throughout, designed to challenge the students to think about subjects and sounds in new ways.

**ABOUT THE MATERIALS:** Each teacher receives a Teacher's Guide that contains a Listening Preparation (found in purple bordered boxes) and Lesson Planning Guides by grade level found beginning on page 23. Additionally, there is a DVD with the music of each work and suggestions by work and grade level for the Listening Preparation and lesson plans. Each student receives a Student Journal with information about the composer and the work presented.

## BEFORE THE CONCERT:

- 1) Have the students complete the 1<sup>st</sup> half of the writing assignment **WHAT DO YOU KNOW?** on page 30 in the Student Journal, responding to one of the selected questions.
- 2) Prepare the students in advance of the concert by completing the Listening Preparation exercise for each work. For the two works that are longer, so you might play a portion each day. Playing the piece at two different times provides reinforcement and recognition. (The conductor will only play excerpts of the longer works.)

Each of the classroom teachers and music teacher should select which of the works to do the Listening Preparation based on the curriculum they will be teaching throughout the year. On the next page is a grid to aid in making the selection. For instance, the math teacher should select the *Concerto for the Piccolo* because the Lesson Planning Guide for that work is based on the math curriculum. Social studies teachers should select the 1812 Overture because of its historical and geographical content. But that piece is also good for literacy because of the poetry and storytelling possibilities.

- 3) Discuss appropriate etiquette (music or social studies teacher) - Designate a teacher to review the appropriate etiquette box on page 3 in the Student Journal. Some teachers have given a grade for conduct. The music teacher should review information about the instruments, the concertmaster and the conductor. [P.6.3-4.4, P.6.5.3]
- 4) The classroom teacher should review "What is a Super-Hero?" and complete the exercise in the Student Journal on page 4.

**IMMEDIATELY AFTER THE CONCERT:** Have the students complete two writing prompts in the Student Journal: 1) completing the 2<sup>nd</sup> half of **WHAT DO YOU KNOW?** on page 30 and the "**After the Concert**" writing exercise on page 31 of the Student Journal. Please send copies of their writing to the address Arkansas Learning Through The Arts on the next page.

**THROUGHOUT THE YEAR:** Review the Lesson Planning Guides (see below) to determine which guides will be useful for your curriculum and grade level. Determine when in the year you will be covering the subjects. At that time, the subject teacher should play the music again for the students and re-discuss the music as part of the lesson. **It is not necessary to complete all the activities prior to the concert.**

In all cases, the music and art teachers can reinforce the teaching by the curriculum teacher by completing the suggested music or art activities at the time the material is being covered in the classroom.

**LESSON PLANNING GUIDES** may be found starting on page 23. These are presented by grade level and they relate to specific curriculum that is in the Common Core standards or State frameworks. Each Guide is responsive to an Essential Question and is linked with a specific concert piece. In some cases, the Essential Question is the same across the grades, but the guide is tailored to the grade level.

For the music that has no Lesson Planning Guide for a grade level, it is recommended that each subject teacher select one or two to cover in their class. All the pieces are short except for Beethoven and Tchaikovsky. The music teacher may be of assistance if there is any uncertainty or confusion about the music or composer. The music teacher may also choose to play some of the works and cover the pieces from the point of view of the music curriculum.

Work:	Grade:	3	4	5	6
<i>Superman</i>					Soc. St. ELA
<i>Concerto for Bass Tuba: Movement 1, Allegro</i>		Science Music			
<i>Concerto for Piccolo in C: Movement 1, Allegro</i>		Science Math Music	Math Music	Math Music	Math Music
<i>Eroica Symphony No. 3 in E flat: Movement 1, Allegro con brio</i>		Soc. St.	Soc. St. Music	ELA Soc. St. Music	Music
<i>Overture 1812</i>		ELA Soc. St.	ELA Soc. St. Music	ELA Music	ELA Music
<i>El Capitan</i>		ELA Soc. St.	ELA Soc. St.	ELA Soc. St.	ELA Soc. St.
<i>The Simpsons</i>			Music	Music	Soc. St. Music
<i>All Compositions: Graphic Story Lines</i>		Inter- Disciplinary	Inter- Disciplinary	Inter- Disciplinary	Inter- Disciplinary

The art, literacy or social studies teacher can direct the students to design a picture or collage for the front cover of the Student Journal. Show them the collage of the Teacher Guide as an example.

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# Table of Contents

Page Number in:

**Teacher  
Guide**

**Student  
Journal**

Introduction: Orchestra, Meet The Conductor, Super-Hero Worksheet Letter to the Teachers and Table of Contents	2-5	2 - 5
<b>The Concert Program:</b>		
<b>I. UNRECOGNIZED (or 'unsung') HEROES</b>		6
<i>'Superman,' Theme from the movie by John Williams (04:23)</i>	6-7	7-8
<i>Concerto for Piccolo in C: Movement 1, Allegro by Antonio Vivaldi (03:33)</i>	8-9	9-10
<i>Concerto for Bass Tuba: Movement 1, Allegro Moderato by Ralph Vaughn Williams (04:23)</i>	10	11-12
Poetry Related to Unsung and Military Heroes	11	
<b>II. MILITARY HEROES and the World in 1800</b>	12	13-14
<i>Symphony No. 3 in E flat: Movement 1, Allegro con brio by Ludwig van Beethoven (13:16)</i>	13-14	15-17
<i>Overture 1812 by Pyotr Tchaikovsky (15:32)</i>	15-18	18-22
<i>El Capitan by John Philip Sousa (02:27)</i>	19-20	23-44
<b>III. INSTRUMENT FAMILY HEROES</b>		25
<i>'The Simpsons,' Theme from the television show, by Alf Clausen and arranger Danny Elfman (01:36)</i>	21-22	26-27
<b>Classroom Teacher Lesson Planning Guides and Student Worksheets</b>		
How Does Music Tell a Story? (English Language Arts)	23-24	
How is Math Used in Writing Music? (Mathematics)	25-28	
Why Do Different Instruments Make Different Sounds? (Science)	29,31	
What Sounds Do Different Instruments Make? (Music)	30,32	
How Does Music Reflect Culture and Historical Events? (Social Studies)	33-37	
How Are Families of Instruments Used in the Orchestra? (Music)	38-39	
<b>Interdisciplinary Worksheet: Creating Graphic Storylines for Music</b>	40-42	
How Can Music Be Depicted in Images?		
<b>Similar Words and Crossword Puzzle*</b>		28
<b>Glossary</b>		29
<b>Suggested Reading List &amp; Bibliography</b>	43	
<b>What do you Know?</b> (writing exercise)		30
<b>After The Concert</b> (writing exercise) ~ <i>Please send selected copies to ALTTA.</i>		31
Note to the students' families and Donor and Volunteer Recognition	44	32

\*Answers to the Crossword Puzzle: ACROSS ~1. Outcome 4. Brass 6. Piccolo 8. Also 10. As 11. Hero 12. debut 15. Step DOWN ~1. Opera 2. Compose 3. March 4. Ballet 5. String 7. Score 9. Sad 14. Up

## *Superman, Theme from the Movie* by John Williams

**What about the music?** John Williams was asked to write the music for the movie *Superman* because he had already been successful at writing for movies about heroes and villains. The most famous was *Star Wars*. The movie director wanted the same suspenseful music for *Superman* which was made in 1978 starring Christopher Reeves. The theme was continued to be used in the three movies that were made later.

Williams was skillful at using a short, recurring musical phrase called leitmotif (light moe teef) to represent a particular person, place or idea. These motifs are all found in the movie, but not all of them are part of the *Superman* music being presented by the Arkansas Symphony Orchestra. You can find all the Superman themes on YouTube by searching for the name of the motif. Students may enjoy hearing the other themes if using this music to help write a story. Project the pictures on pages 6 and 7 to demonstrate the heroic and evil aspects of the characters as depicted by an artist.

- **Superman Fanfare.** A short triad-based motif - played throughout, such as
  - just before the Superman Main Theme, or
  - when Superman appears in a quick-cut on-screen or
  - many times in the "Superman March".
- **Superman March or Superman Main Theme.** It has two sections:
  - an **A** theme which is the main part of the melody, and
  - a **B** theme which is a bit lighter in mood (and connects the March to the Fanfare.)
- **Can You Read My Mind?, or the Love Theme.** In the movie, it is heard when Lois and Superman (or sometimes Clark) find themselves alone together.
- **Krypton Fanfare** is heard when the audience zooms in on Krypton.
- **Krypton Crystal** motif or the **Secondary Krypton** motif. These are mysterious-sounding themes associated with the planet Krypton, both the crystals sent by his father Jor-El to Earth with his son and the radioactive kryptonite which is deadly to Superman.
- **Personal** motif. This melody tells of the two sides of the same person - Superman and Clark Kent. It musically connects the Fanfare to the Love Theme.
- **Smallville or Growing Up Theme.** This melody tells of the time that Clark Kent (Superman) was growing up in a small town in Kansas.
- **The March of the Villains or Lex Luthor Theme.** This is an amusing march that is heard when the villain Lex Luthor and his henchman Otis are on the scene.



## LISTENING PREPARATION

The Overture uses four of these themes and introduces the movie.

0:00-0:45 Superman Fanfare

0:45-2:17 Superman March themes: both A and B, with transitions from one to the next

2:17-2:55 Can You Read My Mind?

2:55-3:17 Back to Superman March B theme, then repeating the A theme

3:57-4:07 Finishing with the Superman Fanfare



It's a bird, it's a plane ~~ NO! It's SUPERMAN!

## *Concerto for Piccolo in C: Movement 1, Allegro* by Antonio Vivaldi

**Who wrote the Music?** Antonio Vivaldi was a composer in the Baroque period which musically spanned from 1600's to 1750. He made a huge mark on music in his lifetime because of his originality and was very popular. He created an Italian musical style in which the strings were prominent. This was a shift from the prior descriptive style of music. Not only did he compose for the Ospedale, he wrote many concertos, operas, cantatas and other concert music that were frequently performed. In fact, he solidified the tradition that concertos have three movements.

One of the greatest compliments in his lifetime was given by J.S. Bach. He admired his compositions and transcribed several of Vivaldi's concertos for solo harpsichord, solo organ and four harpsichords with strings. Some of Bach's compositions are said to have features (or imitations) of Vivaldi compositions.

Heads of state from other countries, such as King Louis XV of France, also commissioned Vivaldi for special works. However, he had the misfortune of being totally forgotten within a hundred years of his death, a fate of most composers. Part of the reason may be that the style of music changed and became more interesting and complex.

His re-discovery in the early twentieth century may have been due to Bach's transcriptions. Many modern day critics have written him off as excessively prolific and facile. The famous Russian composer, Igor Stravinsky, reportedly remarked that Vivaldi wrote "the same concerto four hundred times," which might be an unfair point of view, given his contribution to music at the time.

**What about the music?** Nearly half of Vivaldi's five hundred-plus concertos are for solo violin, but he also composed concertos for bassoon, cello, oboe, and even mandolin. None were for the keyboards. Only three concertos are written for "flautino," a "little flute" or high-pitched recorder that is the equivalent of today's piccolo. In this work, the solo role is more virtuosic and demanding than Vivaldi's normal woodwind writing.

The first movement of a concerto during the Baroque period was in the form of a ritornello (or 'little return' in Italian), a pre-cursor of the Sonata form discussed in the Beethoven section. The full orchestra introduced the theme, the solo played with orchestral accompaniment and then re-introduced the theme in another key. This exchange could happen several times during a movement. At the end, the full orchestra returns with the theme in the original key. It is said that Vivaldi solidified this structure of composing.

## LISTENING PREPARATION

Min:Sec

00:00	Introduction - 4 measures
00:04	Main theme - Orchestra - in the key of C major
00:25	First solo - includes 2 sets of 7 measures of 16 <sup>th</sup> notes
00:54	Return of main theme - in the key of A minor
01:04	Second solo - includes 17 measures of 16 <sup>th</sup> notes - in ascending and descending arpeggios (a chord played one note at a time).
01:35	Return of main theme - in the key of F major
01:46	Third solo
02:13	Return of main theme - in the key of E minor
02:27	Fourth solo - includes 14 measures of 16 <sup>th</sup> notes
03:09 03:27	Final return of main theme - in the key of C

Below is a painting of Venice in Vivaldi's time which shows the dependence on the canals and ships for everyday transportation. San Marcos Square is in the left center of the painting in the square with a large tower with a blue roof. If you follow the canal to the right over a bridge, there is Vivaldi's church where his music was often played.



## *Concerto for Bass Tuba: Movement 1, Allegro Moderato by Ralph Vaughan Williams*

**Who wrote the music?** Ralph (Raif) Vaughan Williams had a very traditional musical training in that he studied at the Royal College of Music and then Cambridge University. He also studied in Germany with the composer Max Bruck who emphasized the importance of folk music and later in France with Maurice Ravel who introduced him to French impressionism. Both had subtle but strong influences on his compositional style.

Musically, his studies occurred in the time period at the end of the Romantic Period and just as Modernism was beginning to emerge in the 20<sup>th</sup> century. At the end of the 19<sup>th</sup> century, the English folk song was building in popularity among composers. Vaughan Williams collected the English folk songs seriously. While he never directly used the melodies from the songs in his orchestral works, aspects of folk music became apparent in his music. He was also influenced by the English hymn; he had rewritten the Anglican hymnal in 1906.

His initial compositions were very beautiful and pastoral, such as *Fantasia on a Theme of Thomas Tallis* and *Sea Symphony* for choir and orchestra, using poems by Walt Whitman. Increasingly through both world wars, his compositions became more dramatic, complex and innovatively modern.

When commissioned to write a concerto for the tuba, Vaughan Williams chose to take the instrument seriously instead of potentially creating a comedic and light work. The Concerto has become a showpiece for the tuba and challenges every tuba players' skill, agility and musicianship. There have since been written several works featuring the tuba but none so elegant for the listener and challenging for the musician.

### LISTENING PREPARATION

00:00	Short orchestral introduction.
00:04	Tuba introduces a 5 note rhythmic theme which is used repeatedly throughout ~~ sounds like a giant tip-toeing a dance.
00:40	Tuba does a trill (2 notes played rapidly in succession) and launches into a new theme and rhythms.
01:10	Development - interaction between the tuba and orchestra, playing off of both themes.
02:05	Chinese sounding intervals based on the 5 note rhythm. Building complexity in the orchestra leading to a .....
03:07	Recapitulation - Tuba restates the themes in a solo cadenza, showing off the tonal range of the instrument, making many wide interval leaps.
04:11	Orchestra joins in with quiet, harmonic chords for a brief closing passage.

## Additional Texts about Unsung (and Military) Heroes

"The Greatest Man" is the 19th song in Charles Ives's song collection *114 Songs*. The text is from Anne Collin's "The Greatest Man," published in *New York Evening Sun* in 1921.

American poet, Walt Whitman (1819-1892) was a volunteer during the Civil War and wrote a number of poems based on his war experience. Composers Ralph Vaughan Williams and Gustav Holst set the Whitman poem, *Dirge for Two Veterans* to music.

Questions for students: Identify the unsung heroes and list important adjectives the writers used to set the tone for these poems. Why do you think composers have chosen these texts to set to music? Have the student look up unfamiliar words in the dictionary.

### The Greatest Man

by Anne Collins

My teacher said us boys should write  
about some great man, so I thought last night  
'n thought about heroes and men  
that had done great things,  
'n then I got to thinkin' 'bout my pa;  
he ain't a hero 'r anything but pshaw!  
Say! He can ride the wildest hoss  
'n find minners near the moss  
down by the creek; 'n he can swim  
'n fish, we ketch'd five new lights, me 'n him!

Dad's some hunter too, Oh, my!  
Miss Molly Cottontail sure does fly.  
When he tromps through the fields 'n brush! (Dad  
won't kill a lark 'r thrush.)  
Once when I was sick 'n though his hands were rough  
he rubbed the pain right out. "That's the stuff!"  
he said when I winked back the tears. He never cried  
but once 'n that was when my mother died.  
Ther're lots o' great men, George Washington 'n Lee,  
but Dad's got 'em all beat holler, seems to me!

### Dirge for Two Veterans

by Walt Whitman

The last sunbeam  
Lightly falls from the finish'd Sabbath,  
On the pavement here—and there beyond, it is looking,  
Down a new-made double grave.  
Lo! the moon ascending!  
Up from the east, the silvery round moon;  
Beautiful over the house tops, ghastly phantom moon;  
Immense and silent moon.  
I see a sad procession,  
And I hear the sound of coming full-key'd bugles;  
All the channels of the city streets they're flooding,  
As with voices and with tears.  
I hear the great drums pounding,  
And the small drums steady whirring;  
And every blow of the great convulsive drums,  
Strikes me through and through.  
For the son is brought with the father;  
In the foremost ranks of the fierce assault they fell;

Two veterans, son and father, dropt together,  
And the double grave awaits them.  
Now nearer blow the bugles,  
And the drums strike more convulsive;  
And the day-light o'er the pavement quite has faded,  
And the strong dead-march enwraps me.  
In the eastern sky up-buoying,  
The sorrowful vast phantom moves illumin'd;  
('Tis some mother's large, transparent face,  
In heaven brighter growing.)  
O strong dead-march, you please me!  
O moon immense, with your silvery face you soothe me!  
O my soldiers twain! O my veterans, passing to burial!  
What I have I also give you.  
The moon gives you light,  
And the bugles and the drums give you music;  
And my heart, O my soldiers, my veterans,  
My heart gives you love.

## **MILITARY HEROES**

This section focuses on the most obvious heroes ~~ those that have succeeded in war or those inspired by their actions. The first two works deal with the presence of Napoleon Bonaparte in Europe. The text in the Student Journal on page 13 connects the French Revolution to the American Revolution. On page 14, there is a map of the world showing which countries were dominant from the European point of view. Lead a discussion based on the information provided, e.g. why the British could cause the War of 1812.

### **Napoleon's Influence**

Students can discuss how the American and French Revolutions were the same and different, primarily that the American led to a democracy and the French ended up with a dictator with power aspirations. Some questions for the students might be:

Why would the French think that Napoleon was a hero?

Why would the Russians think that Napoleon was a bully?

What does it mean to be a bully? How should bullies be stopped and treated?

How are wars and battles today different than in Napoleon's time? method of travel, distance to the battlefield, supplies for the army, treatment of the wounded.

How can bullies in the world be stopped? How can bullies at school be stopped?

What do you do when you are threatened?

Do you know heroes that have been important in your life, your community or in history? Why do you think they are heroes? Who are bullies today?

The story of *El Capitan* can be discussed at the same time. Although it is a fictional comedy, the setting is about the same time in Peru, and the story deals with Spanish domination of the area. The same types of questions as above can apply to this story. Students could compare and contrast the nature of the hero/villain in each story.

### **Super-Hero Composers**

The music composed in this section was inspired by actual people and events. Most importantly, Beethoven was a product of his times when vast changes were sweeping Europe. He was passionate about the potential for positive change, and that led him to create unique and expressive approaches to composition.

Sousa was also important for his leadership in creating music that was uniquely American and popularizing the works of other composers. In the long run, his music is overshadowed by the towering Beethoven, but his style is unique to Sousa and is very recognizable; it may be played as frequently as Beethoven's because it has become part of the American patriotic music. Few composers have had such a lasting influence as these two giants of music.

## *Symphony No. 3 (Eroica) in E flat: Movement 1, Allegro con brio* by Ludwig van Beethoven

**What about the Music?** Beethoven provided the audience dramatic changes that affected the way music would be written forever. In that sense, Beethoven was a major hero in the development of music and stands alone in his achievement. He does not fit into any mold or period. He was 'Beethoven,' a composer who no longer belonged to the Classical Period (Mozart and Haydn) and set the stage for the Romantic Period (Brahms and Chopin).

An analysis of the first movement is provided in the Student Journal instead of a listening map or chart. This analysis uses 'waveform' graphics which demonstrates what is going on in the movement, using color and short/long lines similar to those found in the graphics for an electrocardiogram.

The first analysis gives a comparison of the first movement of a Mozart symphony versus the first movement of the *Eroica Symphony*. The colors depict the different sections of the Sonata-form structure that was usual for concertos and symphonies of the period.

The significance of the comparison is that each section of Beethoven's first movement is twice as long as Mozart's, which was shocking for audiences at the time. Generally, concert audiences became comfortable and knowledgeable about what they expected to hear because going to concerts was a main form of entertainment.

The second analysis shows the same shapes as in the first, but uses different colors to show the significant activities in the different sections. The significance is that Beethoven used many different approaches to create drama and interest:

Placing instrument sections against each other in different ways, such as lilting woodwinds set next to scurrying strings;

Use of 3/4 time which is usually the meter for a dance, not the opening movement of a symphony with strong dynamics and ferociousness;

Inserting syncopation (off beats) in unexpected places to change the rhythm and 'disorient' the listener, often using the full orchestra to make off beat chords, especially in the Coda section building to the finish; and

Making unconventional key and tonal transitions, from the expected and traditional approaches to very unsettling experiences for the listener.

These approaches may not seem that different to listeners today because we are now accustomed to them. But to the audiences of his day, the *Eroica Symphony* was shocking.

## LISTENING PREPARATION

(references are made to colors in the first analysis (waveform chart) in the Student Journal)

00:00	First two strong chords, getting the attention of the audience - 'Listen up'- played by the whole (or tutti) orchestra
00:12	<b>Exposition</b> starts with <b>Theme 1</b> (dark green) in the strings and brass
01:12	<b>Theme 1 repeated</b> (light green) in the full orchestra
00:50	<b>Theme 2</b> (light green)
02:50	<b>Development</b> (red) with syncopation, strong chords, and minor key and
05:27	an unexpected new theme in a major then a minor key, interlaced with the main theme.
07:35	<b>Recapitulation</b> (turquoise) - starts with a 'premature' horn playing seemingly early on top of quiet string chords, awaiting the
07:45	restatement of the main themes and rhythms of the Exposition
10:33 - end	<b>Coda</b> (purple), starting briefly with a short minor section 11:20 and restating the main themes and rhythms throughout, in the different instrument families, gradually building in tension to a dynamic conclusion with the full orchestra.

### Main theme of Exposition



### New theme in the Development section, played by clarinets, oboes and strings



# *1812 Festival Overture*

by Pyotr Tchaikovsky

**Who wrote the Music?** By the age of 23, Tchaikovsky (cheye - kov - ski) had devoted himself entirely to music, but he wasn't smart about making a living. He lived in poverty most of his life. He worked so hard that he often suffered from 'disordered nerves,' depression and insomnia; he had frequent nightmares about sharps and flats. He never really was comfortable with people, and so had few close relationships. He led a curious life. For example, he never actually met his wife although they did pass once on the street. He wanted "a quiet country life" playing card games and watching flowers grow.

What we do know is that 1) Tchaikovsky had a great gift for melody, and 2) he could make the orchestra sound brilliant and express strong emotions. Both of those talents quickly captured the ear and heart of audiences. He knew how to write music that people loved, much like John Williams today. He enjoyed writing music about specific events, such as the *1812 Festival Overture*.

He died during an epidemic of cholera after drinking unboiled water, despite the advice of good friends who were present. Within a week, Tchaikovsky died. During those times in Russia, the water systems were not purified, and not everyone understood that boiling water killed bacteria that might be in the water.

**What is the Music about?** Tchaikovsky was commissioned to write this overture in anticipation of the 70<sup>th</sup> anniversary celebration of turning back Napoleon's army from Moscow. The work was to be festive (in spite of the gravity of the battle) and patriotic. Throughout the piece are Russian folk tunes representing the Russian people. The armies are represented by the French national anthem, *La Marseillaise* (mar say yay) and the original Russian national anthem, which has been re-instated after the fall of the Soviet regime. More often than not, the winning army is portrayed by the brass instruments and the losing army by the strings, each family of instruments playing the national anthems. When the roles reverse, the instrumentation reverses.

Of importance is that this attack brought the Russian people together and was probably the first sign of national unity and nationalism in the country. In many ways, the battle was a joint effort of the army and the people who allegedly participated by burning the city so there would be nothing for the French and by taking everything with them when they evacuated. Some historians suggest the fires were accidental.

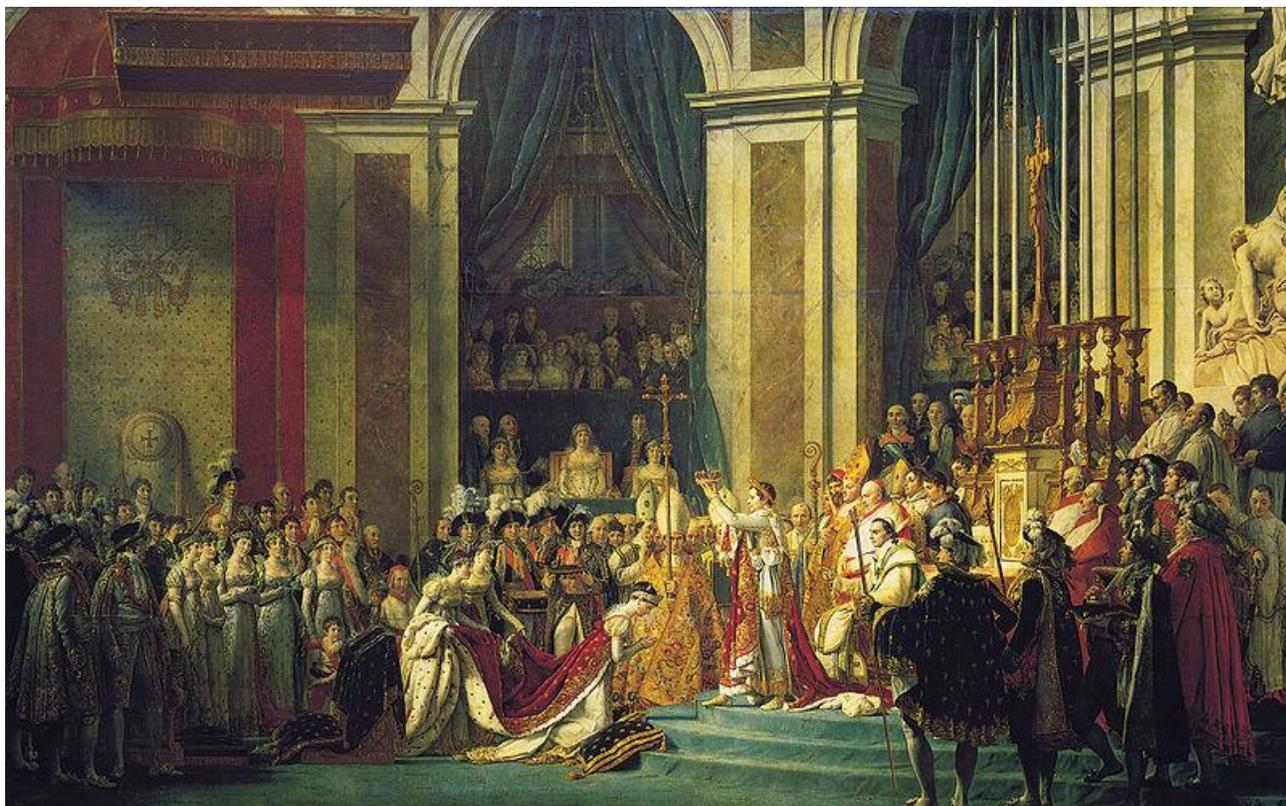
An additional ally was the weather. An Arctic storm descended unusually on Moscow in the Fall. The French were naturally unprepared for the cold while the Russians had the appropriate outwear for protection. When the French retreated, they could not take their cannons with them because of the depth of the snow. The Russians were able to turn

the cannons on the French, hastening their retreat. Tchaikovsky wrote the cannons into the last section of the work for the celebration in 1882. The cannons were also present in 1974 when John Williams and the Boston Pops played an outdoor concert for a July 4 celebration.

**Who is the hero?** Certainly for the French, Napoleon had been a great hero in pulling France together after the French Revolution. He made some very enlightened policy and organizational changes in the government, such as setting up a justice system and provincial and national government structures. He was greatly admired all over Europe. But he was greatly feared because of his ambition. When he started intimidating and bullying Europe, public opinion also changed radically.

Clearly in this work and from the point of view of the Russian people, Napoleon is not the hero (as also discussed in the Beethoven section). Heroism was to be found in the actions of the Church calling the people to action, in the people who rose to the occasion to defend their homeland and in the efforts of the Russian army who fought against the largest army ever assembled in Europe.

Below is a famous painting of the Coronation of Napoleon where he has crowned himself (rather than by the Pope who is seated behind him) and is crowning the Empress Josephine in Notre-Dame in Paris. The painting is by Jacques-Louis David and Georges Rouget and hangs in the Louvre Museum.





## The French National Anthem

La Marseillaise.

17. *Marziale.*

1. Arise children of the fatherland  
The day of glory has arrived  
Against us tyranny's  
Bloody standard is raised  
Listen to the sound in the fields  
The howling of these fearsome soldiers  
They are coming into our midst  
To cut the throats of your sons and consorts

*To arms citizens Form your battalions  
March, march  
Let impure blood - Water our furrows*

2. What do they want this horde of slaves  
Of traitors and conspiratorial kings?  
For whom these vile chains  
These long-prepared irons?  
Frenchmen, for us, ah! What outrage  
What methods must be taken?  
It is us they dare plan  
To return to the old slavery!1

3. What! These foreign cohorts!  
They would make laws in our courts!  
What! These mercenary phalanxes  
Would cut down our warrior sons  
Good Lord! By chained hands  
Our brow would yield under the yoke  
The vile despots would have themselves be  
The masters of destiny

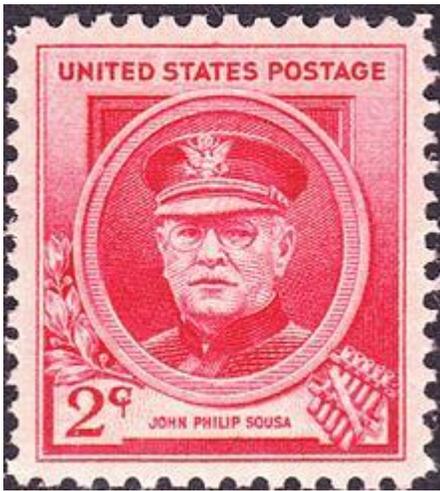
4. Tremble, tyrants and traitors  
The shame of all good men  
Tremble! Your parricidal schemes  
Will receive their just reward  
Against you we are all soldiers  
If they fall, our young heroes  
France will bear new ones  
Ready to join the fight against you

5. Frenchmen, as magnanimous warriors  
Bear or hold back your blows  
Spare these sad victims  
That they regret taking up arms against us

But not these bloody despots  
These accomplices of Bouillé  
All these tigers who pitilessly  
Ripped out their mothers' wombs

6. We too shall enlist  
When our elders' time has come  
To add to the list of deeds  
Inscribed upon their tombs  
We are much less jealous of surviving them  
Than of sharing their coffins  
We shall have the sublime pride  
Of avenging or joining them

7. Drive on sacred patriotism  
Support our avenging arms  
Liberty, cherished liberty  
Join the struggle with your defenders  
Under our flags, let victory  
Hurry to your manly tone  
So that in death your enemies  
See your triumph and our glory!



## *El Capitan March* by John Philip Sousa

**Who wrote the Music?** John Philip Sousa became a foremost American composer, conductor and writer, known as the 'March King.' After being apprenticed to the U.S. Marine Band for seven years, he played the violin in various theatre orchestras to earn a living. He learned to conduct in the theatres through practical experience.

In 1892, he formed his own band called the Sousa Band which became very popular and continued performing until 1931. Sousa had a profound effect on American musical tastes partly for the touring that the band did throughout the United States. They performed over 15,000 concerts in the United States and Europe. While the band is best known for playing his marches, Sousa also incorporated other American music into his concerts. He is particularly known for popularizing the Rag-Time music of Scott Joplin.

Sousa's most well known marches include *The Washington Post*, *Stars and Stripes Forever*, *Semper Fidelis*, and *The Liberty Bell* (later used as credits theme for *Monty Python's Flying Circus* TV series). He also composed several comic operas (operettas), including *El Capitan* which was one of the more popular. He arranged the *El Capitan March* so that the Sousa Band could play it on tour.

Sousa was very opposed to recorded music and submitted the following arguments to a congressional hearing in 1906:

These 'talking machines' are going to ruin the artistic development of music in this country. When I was a boy...in front of every house in the summer evenings, you would find young people together singing the songs of the day or old songs. Today you hear these infernal machines going night and day. We will not have a vocal cord left. The vocal cord will be eliminated by a process of evolution, as was the tail of man when he came from the ape.

Fortunately, the Sousa band eventually made numerous recordings on the cylinder records. Sousa is credited with referring to records as 'canned' music because they were recorded on cylinders that looked like cans.

**What about the Music?** The *El Capitan March* is a short march, just over two minutes long. It is generally in the same structure and format as other marches, with one exception. There are a couple of sections that are in a 'trio' time, hinting at waltz themes that would have been in the operetta.

When you listen to the march, you will notice a very strong pulse to the music. Every second pulse is stressed, and the beats are constant, at a regulated tempo. (That tempo would be the pace that a band or army would march - 120 steps in a minute.) The stressed beats are called downbeats. In marches, the time between downbeats is called a measure and represents a span of time.

Rhythm is the pattern formed by sounds and silence - whether musical or spoken rhythms, as in poetry.

Meter is the sensation of a pulse in the music. For example, a march is **One-two, One-two, One-two**. A waltz is **One-two-three, One-two-three, One-two-three**.

Compare the rhythm of the march duple meter to the children's rhyme - **One two, button your shoe, Three four, close the door.....**

In the *El Capitan March*, there are 138 measures in 2/4 time (or duple time like a march) and 6/8 time (or triple time like a waltz). The tempo is suggested at 125 which is slightly faster than a marching tempo.



This painting is the Spanish Viceroy of Peru from 1761-1776. It is hard to imagine that this Viceroy could have disguised himself and convinced the rebels that he was their leader *El Capitan*.



## *The Main Title Theme from "The Simpsons"* Composed by Danny Elfman and arranged by Alf Clausen

**Who wrote the Music?** The Simpsons music was composed by one composer, Danny Elfman, who moved on to other projects, and was subsequently arranged for each TV episode by a second composer, Alf Clausen.

**Composer Danny Elfman** was born in Amarillo, Texas and grew up in the Los Angeles area and had no idea that he might be talented in composing. As a young teenager, he went to the movies a lot and came to admire the music of the movies. It wasn't until the early 1970s that Danny and his older brother Richard Elfman started a musical troupe while in Paris. Danny came to the film business in 1980 as an actor. The group *Mystic Knights of Oingo-Boingo* was created for Richard's directorial debut, *Forbidden Zone* (1982), and it was the first film that Danny was credited as a composer.

Danny formed a friendship with a new young director Tim Burton, who was then a fan of *Oingo Boingo*. Danny scored the soundtrack of Burton's *Pee-wee's Big Adventure* (1985), which was his first orchestral film score. The Elfman-Burton partnership continued and became most notably successful because of *Batman*. Many doors of opportunity opened in spite of not having any formal musical training.

**Arranger Alf Clausen** was born in 1941 in Minneapolis, Minnesota, and raised in North Dakota. He was interested in music from when he was young. He sang in the school choirs and learned to play the French horn, bass guitar and piano. He read Henry Mancini's book, *Sounds and Scores*, which inspired him and counts Mancini as one of his heroes.

Despite his musical interest, he studied mechanical engineering when he went to college at North Dakota State University. But he had a cousin whose musical talent impressed him, and he switched his major to music theory. He worked as a musician for a while but decided to go to Boston's Berklee School of Music and graduated in 1966. Because he was the only Berklee student tuba player, he played in many ensembles.



After college, he went to Los Angeles in search of television work to become a full-time composer. At first, he arranged music for singers, composed commercial jingles, and was a teacher, music copyist and a bass player.

The copy work led to a job on *Come On Get Happy*, the theme song to *The Partridge Family*. Then he wrote other scores and became the music director and conductor for *Donny & Marie* TV series between 1976 and 1979. Following that success, he was engaged for *The Mary Tyler Moore Hour*, followed by *Moonlighting* and then *ALF*.

Clausen's film credits include *The Beastmaster* (1982), *Airplane II: The Sequel* (1982), *Splash* (1984), *Weird Science* (1985), *Ferris Bueller's Day Off* (1986), *Dragnet* (1987) and *The Naked Gun* (1988).

He was contacted by Fox animated series *The Simpsons* that needed a new composer. Clausen "had no interest in doing animation" and "wanted to be a drama composer." He was convinced when the show's creator Matt Groening told him "we don't look upon this as being a cartoon but a drama where the characters are drawn, and we would like it scored that way." Groening told Clausen that the "emotion [should be] scored first and the action scored second." Most other cartoons related the music to the actions of the cartoon.

**What is the Music about?** *The Simpsons* Main Title Theme plays during the opening sequence of the TV series *The Simpsons*. It was originally composed by Danny Elfman in 1989 after series creator Matt Groening approached him requesting a retro-style theme. In two days, Elfman composed the theme, likely the most popular of his career.

The theme, as used for the opening sequence, was re-arranged during season two, and the current arrangement by Alf Clausen was introduced at the beginning of the third season. There have been extensive edits and re-recordings for various opening sequences.

Clausen has scored almost all of the music and songs which have appeared on the show across a wide range of musical styles. He conducts a 35 piece orchestra for the music, a rarity for television shows, and records the score for an episode every week.

### LISTENING PREPARATION

Follow the listening map in the Student Journal on page 25 which illustrates where solo instruments and instrument families are highlighted in this music.



# A R K A N S A S LEARNING *through the* ARTS

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Musical Composition 1812 Overture      Composer Pyotr Tchaikovsky  
 Musical Composition El Capitan      Composer John Philip Sousa

Grades/Discipline Grade 3 – 6 English Language Arts

**Essential Question: HOW DOES MUSIC TELL A STORY?**

*Arkansas State Curriculum Frameworks:* **Reading 2.** Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas. **Reading 3.** Analyze how and why individuals, events and ideas develop and interact over the course of a text.

**Reading 5.** Analyze the structure of texts, including how specific sentences, paragraphs and larger portions of the text (e.g., a section, chapter, scene, stanza) relate to each other and the whole.

**Writing 2.** Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

**Writing 3.** Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.

**Speaking and Listening 2.** Integrate and evaluate information presented in diverse media such as visual, quantitative, and oral.

**Suggested Preparation for all Grade Levels:** The first 4 activities should be completed prior to the concert.

1. Have the students complete the worksheet on page 4 of the Student Journal about *What Makes a Hero or Super-Hero*.
2. Have students learn about various military heroes by reading page 13 in the Student Journal.
3. Read the description of the scenes of the *1812 Overture* (page 20 in the Student Journal) in preparation of listening to the work.
4. Have the students read the story of *El Capitan* on page 24 of the Student Journal in preparation for listening to the work.
5. Have students examine the painting of *The Battle of Borodino* (page 19) to identify how a painting tells a story.
6. Project the poems on page 11 of the Teacher Guide and have students read aloud together.
7. Complete the table with the four stories to analyze the story sections of the works.
8. Have students write in preparation for the interdisciplinary lesson to depict a story in images.

Text	Beginning	Conflict	Rising Action	Climax	Falling Action	Resolution
<i>1812 Overture</i>						
<i>The Greatest Man</i>						
<i>Dirge for Two Veterans</i>						
<i>El Capitan</i>						

**Grade 3:**

*Suggested Activities:* Have students:

1. After reading about military heroes on page 11 of the Student Journal, a) write on a card the name of a person that they consider a hero, fictional or real, military, political, civic or family; b) define the characteristics of what makes that person a hero and what motivated them and c) discuss the difference between a hero and a bully.
2. Review each scene in the 1812 Overture and discuss what the feelings of the people in those scenes might be and how they change from scene to scene, including the head of the Russian Church, Russian peasants, French soldiers, Napoleon and Russian soldiers. How does the music portray the feelings and events?
3. Review the story of El Capitan and make comparisons with the people in the 1812 Overture, notably that the Spaniards seem to be the hero, but actually they are the invading country. Is El Capitan a hero or a bully – to the Spaniards? -- to the Peruvians?
4. Read each of the poems together in class and discuss the heroism described in each work. Do they have someone in their lives that might be similar to the Dad in the Greatest Man? [The Dirge may not be appropriate for grade 3.]
5. Complete the table above describing the different sections of each work.
6. Have the students write on page 22 of the Student Journal about how music tells a story, based on the class discussions, expressing their opinion on whom the true hero was in the 1812 Overture.
7. Have students develop their own characters, plot and setting for a story about a hero, with beginning, middle and end in preparation for depicting a story in images. Use the materials on pages 41 and 42 to aid them in planning their work.

*Arkansas State Curriculum Frameworks:* RL.3.2 Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text. RL.3.3 Describe characters in a story (e.g., their traits, motivations, feelings) and explain how their actions contribute to the sequence of events. RL.3.5 Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections. W.3.1 Write opinion pieces on topics or texts, supporting the opinion with reasons. W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.3.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. L.3 - 6.6 Acquire and use accurately grade-appropriate [conversational] general academic and domain-specific words and phrases.

**Grade 4, 5 and 6:**

*Suggested Activities:* Have students:

1. Review each scene in the 1812 Overture and a) write a summary that describes the drama that unfolds in the text; b) identify the key characters and how they might have felt and what they did in the drama; and c) determine who the 'speaker' is in the musical work (perhaps the composer) and what was his viewpoint? Who was the speaker's hero(s) and why?
2. Examine the painting The Battle of Borodin and determine the key elements and characters. Further information about the scene and battle may be found by searching on <http://english.ruvr.ru/2012/02/13/65958452/>
3. After reading the poem The Greatest Man on page 11 of the Teacher Guide, identify the important characteristics of the father and why his son considered him the greatest hero.
4. Listen (on YouTube) to the poem *Dirge for Two Veterans*. Search for: a) '*Dirge for Two Veterans* by Walt Whitman' on the Poetry Channel, spoken with pictures; b) '*Dirge for Two Veterans (Part IV of Dona Nobis Pacem)* by Ralph Vaughan Williams' performed by the Hudson Chorale with words on the screen; or c) by Gustav Holst sung by Chor Leoni, a man's choir.
5. Have the students write on page 22 of the Student Journal about how music tells a story, based on the class discussions, expressing their opinion on which the true hero was in the 1812 Overture.
6. Compare and contrast the two poems in terms of structure, rhythm and meter. If listened to the Dirge by Williams or Holst, discuss how the music contributed to the mood and drama of the performance. Students can share their observations about the works.
7. Complete the table above describing the different sections of each work.
8. Have students write an opinion piece about what makes a hero, providing supporting information about the characters in the above works or from other text, such as from Superman.
9. Have the students write on page 22 of the Student Journal about how music tells a story, based on the class discussions, expressing their opinion on which the true hero was in the 1812 Overture.
10. Have the students construct their own story about a real or imagined hero. Use the materials on pages 41 and 42 to aid them in planning their work.

*Arkansas State Curriculum Frameworks:* RL.4-5.2 Examine a grade-appropriate literary text, providing a summary and determining a theme of a story, drama, or poem from details in the text including how characters in a story or drama respond to challenges and how the speaker in a poem reflects upon a topic. RL.6.2 Examine a grade-appropriate literary text, provide an objective summary and determining a theme of a text and how it is conveyed through particular details. RL.4.3 Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, actions). RL.5.3 Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). RL.6.3 Describe how a story's or drama's plot unfolds in a series of events as well as how the characters respond or change as the plot moves toward a resolution. RL.4.5 Compare and contrast the structural elements of poems (e.g., verse, rhythm, meter), drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions), and prose. RL.5.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem. RL.6.5 Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot. W.4-5.1 Write opinion pieces on topics or texts, supporting the opinion with reasons and information. W.6.1 Write arguments to support claims with clear reasons and relevant evidence. W.4-6.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.4-6.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.



# ARKANSAS LEARNING *through the* ARTS

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Musical Composition                     **Concerto for Piccolo in C**                     Composer                     **Antonio Vivaldi**                    

Grades/Discipline                     **Grades 3 – 6 Mathematics**                    

**Essential Question: HOW IS MATH USED IN WRITING MUSIC?**

*Arkansas State Curriculum Frameworks:*

### **Operations and Algebraic Thinking**

Grade 3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities

Grade 3.OA.C.7 Using computational fluency, multiply and divide within 100, using strategies such as the relationship between multiplication and division

Grade.3.OA.D.9 Identify arithmetic patterns (including, but not limited to, patterns in the addition table or multiplication table), and explain them using properties of operations.

Grade 4.OA.A.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity and assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Grade 4.OA.C.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.

Grade.6.RP.A.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. Solve unit rate problems including those involving unit pricing and constant speed. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

### **Number and Operations in Base 10**

Grade 5.NBT.B.5 Fluently (efficiently, accurately and with some degree of flexibility) multiply multi-digit whole numbers using a standard algorithm.

Grade 5.NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on: Place value, The properties of operations, Divisibility rules, and/or the relationship between multiplication and division.

### **Fractions**

Grade 4.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. Understand a fraction  $a/b$  as a multiple of  $1/b$ . Understand a multiple of  $a/b$  as a multiple of  $1/b$ , and use this understanding to multiply a fraction by a whole number. Solve word problems involving multiplication of a fraction by a whole number (e.g., by using visual fraction models and equations to represent the problem).

Grade 5.NF.B.6 Solve real world problems involving multiplication of fractions and mixed numbers.

Grade.5.NF.B.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Interpret division of a unit fraction by a natural number, and compute such quotients. Interpret division of a whole number by a unit fraction, and compute such quotients. Solve real world problems involving division of unit fractions by natural numbers and division of whole numbers by unit fractions.

### **Number Systems**

Grade 6.NS.B.3 Use computational fluency to add, subtract, multiply, and divide multi-digit decimals and fractions using a standard algorithm for each operation.

### **Measurement and Data**

Grade.3.MD.A.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes.

Grade 4.MD.A.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec; yd, ft, in; gal, qt, pt, c. Within a single system of measurement, express measurements in the form of a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

### **Ratios and Proportional Relationships**

Grade 6.RP.A.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. Solve unit rate problems including those involving unit pricing and constant speed.

### **Expressions and Equations**

Grade 6.EE.A.2 Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems.

## Suggested Activities -- Grades 3 – 6

Have students will identify two properties of a musical note:

- a. **pitch** (see sound lesson plan), and
- b. **duration** – the length of time any given pitch lasts until the performer stops playing it and goes on to another pitch

Have students analyze how Vivaldi used musical notes to write *Concerto for Piccolo in C*. Questions are directed by grade level, but lower grade level students may stretch their knowledge and higher levels may need a refresher.

### Grade 3

1. How many measures does the piccolo play? (98)
2. What is the maximum number of quarter notes that can be fit into one measure? (3)
3. What is the maximum number of eighth notes that can be fit into one measure? (6)
4. What is the maximum number of sixteenth notes can be fit into one measure? (12)
5. What pattern do you see in the number of quarter, eighth and sixteenth notes that can be fit into one measure?
6. Given that each measure has 3 beats, how many beats does the piccolo play only sixteenth notes in the 17 measures from 50 to 66? (51)
7. In this composition, there are about 45 measures in each minute of the music. How many measures would be played in the first two minutes? (90) How many in the first 3 minutes? (135)
8. How long do you think it took Vivaldi to write this piece of music? Explain how you decided how long it might have taken, using a strategy you have been taught.

### Grade 4

9. If all of the notes played by the piccolo were sixteenth notes, how many notes would there be in the piece? (1,176)
10. If two thirds of the notes played by the piccolo were eighth notes, how many eighth notes would there be in the piece? (392)
11. How many total sixteenth notes does the piccolo play in measures 50-66? (204)
12. Create at least four patterns of quarter notes, eighth notes and sixteenth notes that could be used to fill one measure of music. Using a pencil eraser, tap each measure and then tap all four measures in a row. Remember that there are 3 beats in each measure and a beat can be 1 quarter note, 2 eighth notes, or 4 sixteenth notes. Find a partner and play your compositions together (repeat the patterns at least 4 times in succession to establish a rhythm). Make revisions that you decide would make your composition sound better.

### Grade 5

13. How many measures would it take to play sixteen sixteenth notes? (1 1/3)
14. How many full measures are played each minute? (44)
15. The violins in the orchestra play mostly eighth notes in this piece. If there are 16 violins in the orchestra, what is the maximum number of eighth notes that could be played by all 16 violins in total? (14,880)
16. How many notes would you estimate the piccolo plays in this piece? Be prepared to explain your answer and tell which strategy you used to figure it out.

### Grade 6

17. Does the piccolo play closer to 2/3, 3/4 or 5/8 of the entire piece? (5/8)
18. How many sixteenth notes are played each second? (8 to 9)
19. If each sixteenth note = 1/4 second for the entire piece, how long would it take to play all 155 measures from beginning to end? (7 minutes, 45 seconds)

### Facts about the composition:

- It is 155 measures long and lasts 31/2 minutes
- Each measure has 3 beats
- The orchestra plays without the piccolo in:
  - Measures 1-18 (18 measures)
  - Measures 42-49 (8 measures)
  - Measures 73-80 (8 measures)
  - Measures 102-111 (10 measures)
  - Measures 143-155 (13 measures)
- From measures 50-66 (17 measures), the piccolo plays all sixteenth notes
- Most of the notes used in the piece are
  - Quarter notes – 1 per beat
  - Eighth notes – 2 per beat
  - Sixteenth notes – four per beat

## MATHEMATICS WORKSHEET

### How is Math Used in Writing Music?

The *First Movement* of the *Concerto for Piccolo in C* by Antonio Vivaldi is a short piece, but it is packed with lots of notes. Let's see how Vivaldi used notes to construct this piece. In the green box, there is information about the piece and the notes in the piece. Below are some questions that Vivaldi may have had to consider when he wrote the piece. Answer the questions and show your work in the box after the question.

#### Facts about the First Movement:

- It is 155 measures long and lasts 31/2 minutes
- Each measure has 3 beats
- The orchestra plays without the piccolo in:
  - Measures 1-18 (18 measures)
  - Measures 42-49 (8 measures)
  - Measures 73-80 (8 measures)
  - Measures 102-111 (10 measures)
  - Measures 143-155 (13 measures)
- From measures 50-66 (17 measures), the piccolo plays all sixteenth notes
- Most of the notes used in the piece are
  - Quarter notes  = 1 per beat
  - Eighth notes  = 2 per beat
  - Sixteenth notes  = four per beat

#### Grade 3 and up

1. How many measures does the piccolo play?

2. What is the maximum number of quarter notes that can be fit into one measure?

3. What is the maximum number of eighth notes that can be fit into one measure?

4. What is the maximum number of sixteenth notes that can be fit into one measure?

5. What pattern do you see in the number of quarter, eighth and sixteenth notes that can be fit into one measure?

6. Given that each measure has 3 beats, how many beats does the piccolo play only sixteenth notes in the 17 measures from 50 to 66?

7. In this composition, there are about 45 measures in each minute of the music. How many measures would be played in the first two minutes? How many in the first 3 minutes?

8. How long do you think it took Vivaldi to write this piece of music? Explain how you decided how long it might have taken, using a strategy you have been taught.

## Grade 4 and up

9. If all of the notes played by the piccolo were sixteenth notes, how many notes would there be in the piece?

10. If two thirds of the notes played by the piccolo were eighth notes, how many eighth notes would there be in the piece?

11. How many total sixteenth notes does the piccolo play in measures 50 – 66?

12. Create at least four patterns of quarter notes, eighth notes and sixteenth notes that could be used to fill one measure of music. Using a pencil eraser, tap each measure and then tap all four measures in a row. Remember that there are 3 beats in each measure and a beat can be 1 quarter note, 2 eighth notes, or 4 sixteenth notes. Find a partner and play your compositions together (repeat the patterns at least 4 times in succession to establish a rhythm). Make revisions that you decide would make your composition sound better.

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## Grade 5 and up

13. How many measures would it take to play sixteen sixteenth notes?

14. How many full measures are played each minute?

15. The violins in the orchestra play mostly eighth notes in this piece. If there are 16 violins in the orchestra, what is the maximum number of eighth notes that could be played by all 16 violinists in total?

16. How many notes would you estimate the piccolo plays in this piece? Be prepared to explain your answer and tell which strategy you used to figure it out.

## Grade 6 and up

17. Does the piccolo play closer to  $\frac{2}{3}$ ,  $\frac{3}{4}$  or  $\frac{5}{8}$  of the entire piece?

18. About how many sixteenth notes are played each second?

19. If each sixteenth note =  $\frac{1}{4}$  second for the entire piece, how long would it take to play all 155 measures from beginning to end?



Musical Composition   **Piccolo Concerto**  

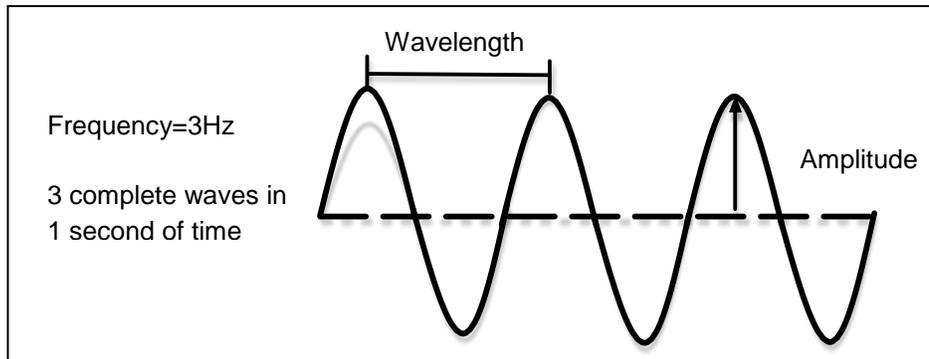
Composer   **Vivaldi**  

  **Tuba Concerto**  

Composer   **Vaughn Williams**  

Discipline   **Science**  

**ESSENTIAL QUESTION: WHY DO DIFFERENT INSTRUMENTS MAKE DIFFERENT SOUNDS?**



*Suggested Activities*

1. Compare and contrast physical characteristics of the piccolo and tuba as described below and discuss how that might affect the sound of each instrument. Have the students read Page 1 of the *SCIENCE WORKSHEET*.
2. Compare and contrast the sounds made by the tuba and the piccolo. Discuss the following questions and then have the students complete Page 2 of the *SCIENCE WORKSHEET*.
  - a) Ask students what they think of when they hear the term “pitch.”
  - b) Play a small portion of Vivaldi’s *Piccolo Concerto* and Vaughn Williams’ *Tuba Concerto*.
  - c) Ask students to describe the pitches of the instruments. Pitch refers to the highness (treble) or lowness (bass) of a sound.
  - d) Ask, “If frequency of a wave affects the pitch of sound, then what property of sound must amplitude affect?”
  - e) Guide students to the idea that amplitude of a wave is related to the loudness of sound. Ask students the following questions:
    - i. If the amplitude of a sound wave is high, what will volume be? (The volume would be loud.)
    - ii. If the amplitude of a sound wave is low, what will volume be? (The volume would be soft.)
  - f) Play the *Tuba Concerto* from beginning to end and have students move their hands close together when the music is soft and the sound wave is low and further apart when the music is loud and the wave is high.
  - g) Show students the different wave patterns on the worksheet. Ask them which wave pattern represents the piccolo and which sound wave represents the tuba. How do they know?
3. Make a bottle pan flute and experiment with changing the pitch by varying the level of water in the bottle. Use the worksheet entitled **How Do Different Instruments Make Different Sounds**, which includes materials and the procedure.
4. Have the students record their observations in writing (sample observations below).

*In a bottle pan flute, you change the pitch by changing the amount of water in the bottle. You probably noticed that when you blew across the bottle with the least amount of water you produced a low-pitched sound, and when you blew across the bottle with most amount of water, you had a high-pitched sound.*

*The bottle that had the least amount of water had a larger amount of air and a greater distance for the wave to travel. This allows the air particles to vibrate at a slower rate producing a low frequency. Low frequencies produce low-pitched sounds.*

*The bottle that had the greatest amount of water had the least amount of air and the smaller distance for the wave to travel. This causes the air particles to vibrate at a faster rate producing a high frequency. High frequencies produce high-pitched sounds.*

*Arkansas Curriculum Framework Standards*

- 3-PS2-1 Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.
- 3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units.  
Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units (e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. (3-PS2-1)
- 4-PS4-1 Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.
- 4-PS4-3 Generate and compare multiple solutions that use patterns to transfer information. [use of sound waves]



ARKANSAS  
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**Grade Level/Discipline**      **Grade 3 – 6 Music**

**Essential Question: WHAT SOUNDS DO DIFFERENT INSTRUMENTS MAKE?**

**Arkansas Curriculum Framework Standards**

P.4.3.1 and P.4.6.1: Identify musical *timbre* • electronic sounds • individual instruments – brass, electronic, percussion, string, vocal and woodwind P.4.4-5.1: Identify musical instruments by sight and sound – brass, electronic, percussion, string, and woodwind

**Suggested Activity**

Compare and contrast physical characteristics of the piccolo and tuba as described on **SCIENCE WORKSHEET, Page 1: Why Do Different Instruments Make Different Sounds?** Discuss how that might affect the sound of each instrument and have the students complete the table below.

	<b>Piccolo</b>	<b>Tuba</b>
Size		
Materials Used		
High/Low		
Loud/Soft		
Thick/Thin		

## SCIENCE WORKSHEET, Page 1

### Why Do Different Instruments Make Different Sounds?

#### About the Tuba

Tubas are found in various pitches, most commonly in F, E $\flat$ , C, or B $\flat$ . The main tube of a B $\flat$  tuba is approximately 18 feet long, while that of a C tuba is 16 feet, of an E $\flat$  tuba 13 feet, and of an F tuba 12 feet.

A tuba with its tubing wrapped for placing the instrument on the player's lap is usually called a concert tuba or simply a tuba. The modern sousaphone, named after American bandmaster John Philip Sousa, has a bell pointed up and then curved to point forward and is designed to be easier to carry in a marching band.

**Valves:** Tubas generally have from three to six valves, though some rare exceptions exist. Three-valve tubas are generally the least expensive and are almost exclusively used by beginners and amateurs, and the sousaphone (a marching version of a BB $\flat$  tuba) almost always has three valves. Among advanced players, four and five valve tubas are by far the most common choices. The valves add tubing to the main tube of the instrument, thus lowering its fundamental pitch. The first valve lowers the pitch by a whole step (two semitones), the second valve by a semitone, and the third valve by three semitones. The fourth valve is used in place of combinations of the first and third valves, and the second and fourth used in combination are used in place of the first three valves in combination.

**Materials and finish:** The tuba is generally constructed of brass, which is either unfinished, lacquered or electro-plated with nickel, gold or silver. Unfinished brass will eventually tarnish and, thus, must be periodically polished to maintain its appearance.

#### About the Piccolo

The piccolo is a member of the woodwind family of musical instruments. The piccolo has most of the same fingerings as the standard flute, but the sound it produces is an octave higher than written. A piccolo produces sound when a stream of air directed across a hole in the instrument creates a vibration of air at the hole. The air stream across this hole creates a siphon. The player changes the pitch of the sound produced by opening and closing holes in the body of the instrument, thus changing the effective length and resonant frequency. To be louder, a piccolo must use a larger resonator, a larger air stream, or increased air stream velocity.

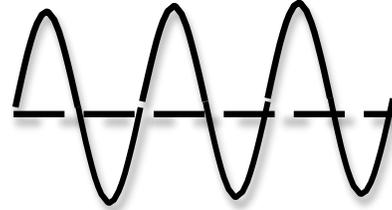
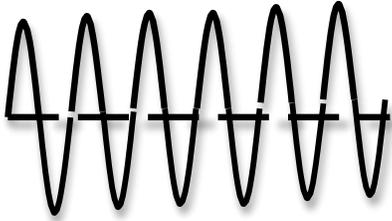
**Size:** The piccolo is half the size of a flute, approximately 12.5 inches in length, in two parts.

**Function:** A molded piccolo produces the greatest overall range of sound, especially for soloists. For an edgier sound in an orchestra with less effort, a piccolo with a metal head is suitable. The grenadilla piccolo has a pleasing timbre and capable of a full, rich combination of sounds.

**Effects:** All are high-pitched but varied in tone. Silver-bodied are best suited for marching bands due to its effectual projection. Wood and resin are fitting for symphonies when a mellower timbre is needed. A piccolo with a silver head joint and grenadilla body is appropriate for wind ensembles and sometimes for the symphony when a more piercing, stand out quality is needed to dominate as the loudest instrument.

SCIENCE WORKSHEET, Page 2  
Why Do Different Instruments Make Different Sounds?

These are the sound waves of the piccolo and tuba. Which belongs to which instrument?



**Why did you make that choice?** Choose one or more factors that affect pitch from the list below based upon the written descriptions of the instruments on the previous page.

- A. *length*                      B. *mass*                      C. *tension*                      D. *state of matter*

**Explain your answer.** \_\_\_\_\_

Make a bottle pan flute and experiment with changing the pitch.

Materials:

- 8 empty bottles with narrow openings (small water bottles are recommended)
- Water

Procedure:

- Measure and fill the first bottle almost full with water.
- Measure and fill the second bottle with less water.
- Continue to measure and fill each of the remaining bottles with water of lesser amounts.
- Record how much water you placed in each bottle.
- Blow across the tops of the bottles and observe how the pitch changes.
- Adjust the water content so that each bottle is a half-step from another bottle.
- Slightly increase and decrease how hard you blow and observe how the volume changes.
- Experiment with making sounds and try to compose a song within the range of half-steps.
- Experiment playing sounds on two flutes together with a partner (duet). See if both of you can play exactly the same pitch (unison). Then find two different pitches that sound good together (consonant pitches) and two different pitches that clash (dissonant pitches).
- Record your observations in writing.

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Musical Composition	<u>Eroica</u>	Composer	<u>Beethoven</u>
	<u>1812 Overture</u>	Composer	<u>Tchaikovsky</u>
	<u>El Capitan</u>	Composer	<u>Sousa</u>
Grade Level/Discipline	<u>Grade 3 – 6 /Social Studies</u>		

### Essential Question: HOW DOES MUSIC REFLECT CULTURE AND HISTORICAL EVENTS?

These three works are reflective of a time when countries were motivated to increase their sphere of influence in order to gain world power and prevent others from becoming more powerful. The activities below are intended to familiarize students with reading and constructing maps, developing an awareness of migrating populations and the resulting effects of these migrations and attempts at world domination. While these occur primarily from the 1600 – 1800’s, there are distinct parallels in the cause and effect of migrations and territorial expansion between that time period and those of prior and current eras. Have students read page 14 of the Student Journal to gain a basic understanding of the world in the early 1800’s.

#### Grade 3

##### *Suggested Activities:*

- Using the key to the map of US/European influence in 1800 in the Student Journal, discuss students the world of Beethoven when he wrote the *Eroica* Symphony. Beethoven was in awe of Napoleon for the re-organization of France’s administration following the chaotic French Revolution. Discuss why Beethoven’s view of Napoleon changed (page 16 of the (Student Journal). At that time, discuss the relationship between the U.S. and Spain and France in the Western Hemisphere.
  - The Mississippi River was the border between the US and Spain.
  - Arkansas (part of the 1803 Louisiana Purchase) was under Spanish control (note that France had given the territory to Spain. Napoleon re-took it in 1803 just before selling it to the United States).
  - France, under Napoleon, was expanding throughout Europe and eastward toward Russia.
- Search for maps that shows population areas in different periods. [www.worldpopulationhistory.org](http://www.worldpopulationhistory.org) has an interactive map that highlights high population areas for years after 1 C.E. Another map shows that today 50% of the population lives in 1% of the land. Why would that be? What are some of the causes that motivate people to migrate from one area to another.
- Compare and contrast the two pieces (*Eroica* and *1812 Overture*) written almost eighty years apart from two different European cultural traditions. Note the inspiration that caused the composers to write the works. Discuss how both works demonstrate the Heroic Style and how that demonstration was similar and different. Use the worksheet **Compare and Contrast Two Musical Works and Cultures**.
- The painting *The Battle of Borodin* was commissioned at approximately the same time as part of the commemoration. Discuss how the painting tells a story, using the questions underneath the painting on page 19 of the Student Journal.

#### *Arkansas Curriculum Framework Standards*

- G.8.3.2 Use thematic maps (e.g., climate, political, *physical*) and other *geographic representations* to describe *physical* and human *characteristics* of a variety of places in Arkansas and the interactions that shape them
- G.9.3.2 Describe effects of cultural characteristics on population distribution in a specific place.
- H.13.3.1 Explain how multiple perspectives are portrayed through historical narratives.

#### Grade 4

##### *Suggested Activities:*

- Using the key to the map of U.S./European influence in 1800 in the Student Journal, facilitate student understanding of the world of Beethoven when he wrote the *Eroica Symphony* and the world that Tchaikovsky was writing about in the *1812 Overture*:
  - The Mississippi River was the border between the U.S. and Spain.
  - Arkansas (part of the 1803 Louisiana Purchase) was under Spanish control (note that France had given the territory to Spain and Napoleon took it back in 1803 just before selling it to the United States).
  - France, under Napoleon, was expanding eastward toward Russia.
  - France had an alliance with Spain and so effectively took over their lands prior to the War of 1812.
- Connect the *1812 Overture* to events in Europe during the War of 1812 in the United States. Britain was fighting Napoleon for control of the seas while fighting the U.S. at the same time. One reason Thomas Jefferson approved the Louisiana Purchase was to keep

Napoleon out of North America. However, territorial disputes between France and Britain over the exact boundaries of Louisiana had not been resolved as part of the Louisiana Purchase. Perhaps Britain had more than one motive in challenging the new U.S. fledgling government. Have the students consider different groups of people and their perspective of world events in 1812 and narrative or opinion about how they felt and why:

- French people who had just overthrown their monarchy and were being led by Napoleon into war;
- American people who were struggling to establish a new government;
- Russian people who were being invaded by Napoleon’s army;
- British monarchy which had just lost a large colony after the American Revolution and further lost the opportunity for the lands of the Louisiana Purchase.

Have the students write about how the world might have developed if Russia had invaded Great Britain instead of Russia.

3. Two works were based on Napoleon and his wars. Beethoven’s *Eroica Symphony* was written during the Napoleonic Wars and Tchaikovsky’s *1812 Overture* which was written almost 70 years after 1812 to commemorate Russia’s success in turning back Napoleon. Compare and contrast the two pieces written almost eighty years apart from two different European cultural traditions using the worksheet entitled **Compare and Contrast Two Musical Works and Cultures**. Discuss how both works demonstrate the Heroic Style and how that demonstration was similar and different.

*Arkansas Curriculum Framework Standards*

- G.8.4.2 Use thematic maps (e.g., climate, political, topographical) and other *geographic representations* to compare *physical* and human *characteristics* of a region to those of another region in the United States and the interactions that shape them
- G.9.4.2 Analyze ways *cultural characteristics* influence population distribution in regions of the United States and the world
- G.10.4.3 Compare *push- pull-factors* that influenced immigration to and migration within the United States
- H.12.4.1 Create historical narratives using chronological sequences of related events in Arkansas and the United States
- H.12.4.2 Interpret timelines that show relationships among people, events, and movements at the local, state, regional, or national level
- H.12.4.4 Analyze the impact of individuals and events on the past, present and future
- H.13.4.1 Describe ways people’s perspectives shaped the *historical sources* they created
- H.13.4.2 Examine why individuals and groups during the same historical period had differing perspectives
- H.13.4.6 Examine current or historical events in Arkansas, the United States, or the world in terms of cause and effect.

**Grades 5 and 6**

*Suggested Activities:*

1. Conduct research on Beethoven, considered by many to be the greatest composer of symphonies in history, selecting and citing the relevant and useful information gathered, and making a plan for presenting your findings. Use the information in the Student Journal and other sources of information about Beethoven, such as suggested in the Suggested Reading List on page 55.
2. Devise ways to present research using available digital resources (i.e., multimedia presentations); present findings to the class or to a wider audience.
3. Connect the *Eroica Symphony* to historical events of the first decade of the 1800’s using the information on Napoleon and European colonization included in the Student Journal on page 14. Compare a political map of the world today to one from 1800 – What are the differences? How and why has man migrated? What areas are still ‘unpopulated’ and why might they not attract a large population?
4. Connect the *1812 Overture* to events in Europe during the War of 1812 in the United States. Use the map on page 14 of the Student Journal to demonstrate how Napoleon’s attention on Russia left Britain alone so they could wage for on the United States.
5. Two works were based on Napoleon and his wars. Beethoven’s *Eroica Symphony* was written during the Napoleonic Wars and Tchaikovsky’s *1812 Overture* which was written almost 70 years after 1812 to commemorate Russia’s success in turning back Napoleon. Compare and contrast the two pieces written almost eighty years apart from two different European cultural traditions using the worksheet entitled **Compare and Contrast Two Musical Works and Cultures**. Discuss how both works demonstrate the Heroic Style and how that demonstration was similar and different.
6. Have students consider what about the *1812 Overture* makes this music patriotic and what makes a piece of music patriotic. Where have they heard this music before? Compare to the Star Spangled Banner that was written during the War of 1812 and the two national anthems of France and Russia – *La Marseillaise* and the 19<sup>th</sup> c. *Russian anthem*, found on pages 17 and 18 in this guide.
7. Have students report their findings on a Data-disk using the worksheet entitled **How Does Music Reflect Historical Events?**

Materials:

- a) Copies of the Data-disk template
- b) Colored markers and pencils
- c) Construction paper
- d) Scissors
- e) Metal brads
- f) Glue sticks

Procedure

1. Have the students prepare six questions and answers relating to their research into Beethoven, *Eroica* and the *1812 Overture*.
2. Have students follow the How-To directions to complete the Data-disk.

*Arkansas Curriculum Framework Standards*

- G.8.5-6.1 Describe locations of *societies* and their cultural and *environmental characteristics*: 5<sup>th</sup> -- within the early Americas through the 1820s and 6<sup>th</sup> to 1500 C.E., using *geographic representations*.
- G.8.5-6.3 Synthesize information from a variety of sources to construct maps and other *geographic representations* to ask and answer *compelling questions*.
- G.9.5.1 Analyze effects of human-generated changes on the physical environment in places and regions over time: 5<sup>th</sup> – from early America to the 1820s and 6<sup>th</sup> – up to 1500 C.E.
- H.6.5.4: Identify areas of the New World colonized by Spain, Great Britain, and France.
- H.6.5.18: Describe the causes of the War of 1812 and analyze the effects it had on the United States.
- H.12.5.16 Examine the impact and significance of the War of 1812 (e.g. nationalism, Dolly Madison, the Star Spangled Banner, the U.S. Flag, borders, Battle of New Orleans D2His.14.3-5
- H.12.5.3 Examine reasons for European exploration in the Americas from multiple perspectives (e.g. trade, religion, colonies, spheres of influence, wealth Ds.His4, 10, 14.3-5
- H.12.5.4 Evaluate short-and long-term effects of European exploration and settlement in the Americas and Arkansas from multiple perspectives (e.g. Roanoke, Jamestown, disease, conflict)
- H.13.6.15 Analyze the global influence and impact of the achievements and perspectives of various individuals (e.g. Gutenberg, Joan of Arc, Niccolo Macchiavelli, Saladin, Sundiata Keita, Mansa Musa, Genghis Khan) D2.His.4.6-8
- H.13.6.18 Analyze ways new ideas contributed to the development of the modern world using multiple sources and perspectives (e.g. empire building, Humanism, isolationism, education) D2.His.2.6-8
- H.13.6.19 Analyze effects of cultural interactions and connections among societies over time (e.g., art, literature, religion, architecture, music, science, technology D2.His.1.6-8
- W.5.7: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

	<b>Beethoven’s Eroica Symphony, Movement 1</b>	<b>Tchaikovsky’s 1812 Overture</b>
Date Written	1804	1880
Culture of composer	German	Russian
Musical Structure	Symphony: Sonata Form	Program Music (themes tell a story) – in 7 scenes
Instrumentation	Mostly string and woodwind instruments with brass and timpani used for effect	Full brass and percussion sections used throughout with actual cannons used for effect
Musical Style (heroic)	Heroic – depicted military conflict	Heroic – depicted actual battles
Cultural traits	Orchestral music composed to commemorate important historic events	Orchestral music composed to commemorate important historic events
Cultural Impact on the US/Arkansas	Beethoven symphonies still played regularly by Arkansas Symphony Orchestra and Hot Springs Music Festival.	1812 Overture regularly played during 4 <sup>th</sup> of July celebrations in the United States – including Arkansas

**SOCIAL STUDIES WORKSHEET**  
**COMPARE AND CONTRAST TWO MUSIC WORKS AND THEIR CULTURE**

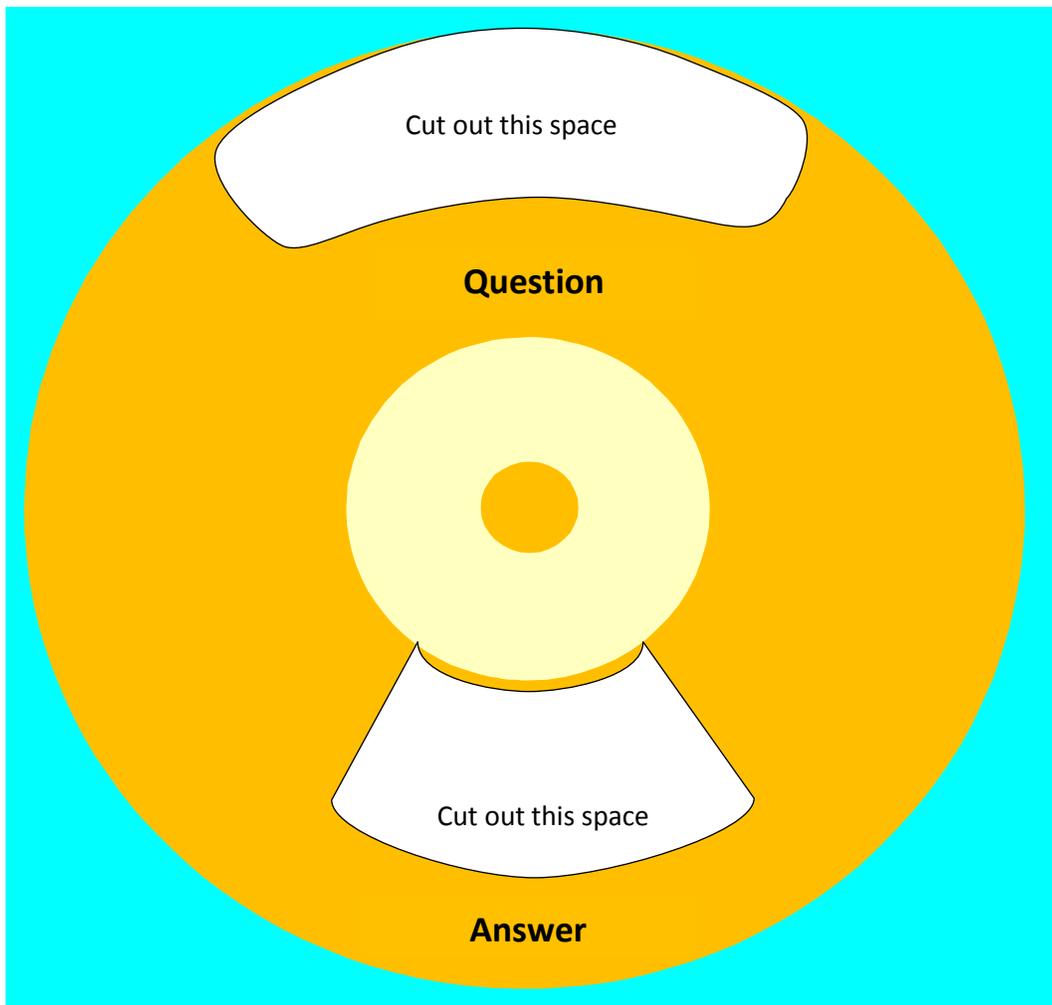
The following music was written by two composers who grew up and lived in different cultures. They were inspired to write about events in the same period of time. One wrote while living in that period. The other wrote looking back on events at that time. Are there similarities? What are the differences?

	<i>Beethoven's Symphony #3</i>	<i>Tchaikovsky's 1812 Overture</i>
What is the year the work was written?		
Culture of composer		
Musical Structure		
Main Instruments		
Musical Style (heroic, militaristic, comedic)		
Cultural Traits		
Cultural Impact on the U.S. and Arkansas		

## SOCIAL STUDIES WORKSHEET

### HOW DOES MUSIC REFLECT HISTORICAL EVENTS?

1. Research Beethoven and the *'Eroica' Third Symphony*, and/or Tchaikovsky and the *1812 Overture*.
2. Write six questions and answers relating to your research.
3. Follow the How-To directions below to complete a data-disk.
  - a) Glue the disk below onto one piece of construction paper.
  - b) Cut out the perimeter of the data-disk (without cutting out the Question and Answer spaces).
  - c) Use the data-disk as a template to cut a circle out of a second piece of construction paper.
  - d) Cut out the Q and A spaces on the first disk.
  - e) Place the Q and A data-disk over the second circle and fasten them together by pushing a brad through the center dot.
  - f) Write your name and a research subject title on the data-disk using creative lettering.
  - g) Write four of your questions in the "Question" space of the data-disk, rotating the disk 1/4 revolution for each question. Students should then write the answer to each question in the "Answer" space.





# ARKANSAS LEARNING *through the* ARTS

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Musical Composition	<u><b>The Simpsons Theme</b></u>	Composer	<u><b>Clausen/Elfman</b></u>
	<u><b>1812 Overture</b></u>	Composer	<u><b>Tchaikovsky</b></u>
	<u><b>Eroica Symphony Movement 1</b></u>	Composer	<u><b>Beethoven</b></u>
	<u><b>Piccolo Concerto</b></u>	Composer	<u><b>Vivaldi</b></u>

Grade Level/Discipline Grade 4-6 Music, Social Studies

Essential Question: **HOW ARE FAMILIES OF INSTRUMENTS USED IN THE ORCHESTRA?**

An orchestra is made up of many instruments grouped into families. These activities are to demonstrate different roles that instruments play within their family and within the orchestra. These roles may be extrapolated to the families we live in and reflect the various decisions that are important to each.

*Suggested Activities*

1. Play *The Simpsons Theme* for students and have them identify the families of instruments and the solo instruments used in the composition. A brass ensemble plays *The Simpson's Theme* on the DVD. For an orchestral version, go to YouTube and search for '*The Simpsons theme song (full songs!)*' or [www.youtube.com/watch?v=Xqog63KOANc](http://www.youtube.com/watch?v=Xqog63KOANc). It is the same length as the work on the DVD.
2. Listen to the music again, following the listening map and noting any additional instruments and/or instrument families that they did not hear previously.
3. Compare instrumentation you hear being used in Vivaldi's *Piccolo Concerto*, Beethoven's *Eroica Symphony*, and Tchaikovsky's *1812 Overture* to that of *The Simpsons* and fill out the chart on page 39.
4. Have the students consider their own family. Have them:
  - a. Create their own family tree. Discuss whether there is someone in their family they consider a hero and why.
  - b. Design a family crest that contains those things based on the characteristics of the family.
  - c. Discuss the items that their family has to make trade-offs or decisions about, just as the composer has to decide what the orchestra will do or play or not do or play.
  - d. Make a chart of items that their family needs versus what they want.
  - e. Consider what they might do to help the family fulfill those needs.

*Arkansas Music Framework Objectives*

P.4.4.1: Identify musical instruments by sight and sound • string, brass, woodwind, percussion, electronic; P.4.5.1: Identify musical instruments by sight and sound • string, brass, woodwind, percussion, electronic; P.4.6.1: Identify musical timbre • brass, string, percussion, woodwind, electronic and vocal.

E.4.5.1 Explain ways *trade-offs* have allowed *societies* to get the most out of scarce resources; E.4.6.1 Examine ways *trade-offs* have allowed *civilizations* to get the most out of scarce resources; E.5.6.3 Compare effects of *supply* and *demand* on early markets.

	Strings	Woodwinds	Brass	Percussion
Vivaldi (Baroque)	violin, viola, cello, bass	piccolo		
Beethoven (Classical)	violin, viola, cello, bass	flute, oboe, clarinet, bassoon	E-flat horn, trumpet	timpani
Tchaikovsky (Romantic)	violin, viola, cello, bass	piccolo, flute, oboe, English horn, clarinet, bassoon	French horn, cornet/trumpet, trombone, tuba	timpani, tambourine, snare drum, cymbal, bass drum, carillon, cannon
Clausen/Elfman (20 <sup>th</sup> Century) Use the YouTube orchestral version	violin, viola, cello, bass, harp	flute, oboe, clarinet, alto/tenor/baritone saxophone,	French horn, trumpet, trombone, tuba	timpani, bongos, xylophone, cymbal, triangle, snare/bass drums, piano

## ***How Are Families of Instruments Used in the Orchestra?***

In each of the instrument families, there are instruments that naturally are given the lead role in their sections. Sometimes, composers use the other instruments in their section to give variety and interest to the sound of the piece. In this concert, a lot of attention is given to instruments that do not usually have the lead or solo role. In which pieces did you hear 'unsung' heroes?

<b>FAMILY</b>	<b>USUAL LEADER</b>	<b>UNSUNG HERO</b>	<b>Which piece?</b>
String	Violin	Cello	_____
Woodwinds	Flute or clarinet	Piccolo	_____
		Saxophone	_____
Brass	Trumpet	Tuba	_____
Percussion	Timpani	Bass drum	_____

Compare the instrumentation you hear in Vivaldi's *Piccolo Concerto*, Beethoven's *Eroica Symphony*, and Tchaikovsky's *1812 Overture* to that of *The Simpsons* and fill out the following chart.

	Strings	Woodwinds	Brass	Percussion
Vivaldi (Baroque)				
Beethoven (Classical)				
Tchaikovsky (Romantic)				
Clausen/Elfman (20 <sup>th</sup> Century)				

## Grades 3 - 6 Interdisciplinary Worksheet

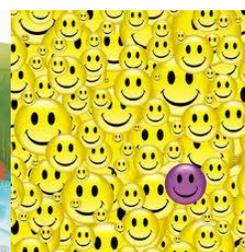
### Creating Graphic Story Lines for Music

Essential Question: HOW CAN MUSIC BE DEPICTED IN IMAGES?

Each of the pieces of music you will hear at the symphony concert is organized by the composer to communicate with listeners. You have seen listening maps for some of the selections. Do you recognize the images below from one of those listening maps? Which piece of music do they represent?



Here is an example of a graphic story line for *Row, Row, Row Your Boat*. As you sing the song, follow the graphics with your finger.



Row, row, row your boat,      Gently down the stream,      Merrily, merrily, merrily,      Life is but a dream.

Next practice making a graphic story line for another familiar song such as, *Itsy-Bitsy Spider*.

Directions: fold an unlined piece of paper into fourths. Number the boxes 1-4.  
Draw a picture for each line of the song, one per box.

- 1      Itsy-bitsy spider went up the water spout.
- 2      Down came the rain and washed the spider out.
- 3      Out came the sun and dried up all the rain.
- 4      And the itsy-bitsy spider went up the spout again.

You've looked at pictures and named the song to which they belonged. You sang a song for Row, Row, Row Your Boat graphic story line. You've made a graphic story Itsy Bitsy Spider. Now you may make your own story:

1. Choose a short work you like from the symphony concert or other short piece for which you would like to make a fictional graphic story - perhaps Superman or El Capitan. If you select Superman, research facts about him and create your own Superman story.
2. Plan your story line using the chart below. Make sure your story has a beginning, middle and end. Your plot or story line can be whatever the music suggests to you. It does not have to be the same story that inspired the composer. Use the questions below to help make your plan.

Your story should have at least four lines and therefore four frames. If you need more frames, you can turn the paper over and add frames 5-8.

Once you have completed your plan, create the dialogue that each character will say in each frame. A frame can have more than one dialogue box. It may also have background that helps set the scene.

3. You are ready to draw the story into each frame. Fold a piece of paper in half and then in half again. You have up to eight frames.

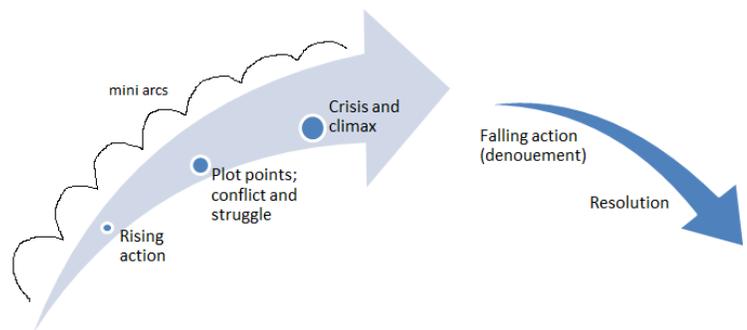
**SETTING:**

Where does the story happen?  
\_\_\_\_\_

When does the story take place?  
\_\_\_\_\_

**CHARACTERS:** Name the main hero and characters. Describe the character with two adjectives in the space below.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



**BEGINNING/RISING ACTION:** What is the main character/hero doing?  
\_\_\_\_\_

**CONFLICT:** What problem happens to confront the character(s)?  
\_\_\_\_\_

**CRISIS AND CLIMAX:** What does she/he do? \_\_\_\_\_  
\_\_\_\_\_

**FALLING ACTION:** What happens immediately after the crisis?

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**ENDING/RESOLUTION:** What is the outcome of whatever the main character/hero did?

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**REASONS FOR YOUR DECISIONS:** What is it about the music that suggests this story to you? (loud/soft, fast/slow, instruments used, form used, etc.)

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### PLANNING YOUR GRAPHIC STORY


## SUGGESTED READING LIST

<p><b>UNRECOGNIZED OR UNSUNG HEROES</b></p> <p>Boys of Steel: the creators of Superman, by Mark Tyler Nobleman (RL 5.8)</p> <p>50 Cents and a Dream, by Jabari Asim</p> <p>Tales of Famous Heroes, by Peter and Connie Roop</p> <p>The Adventures of Robin Hood (Classic Starts) by Howard Pyle et al.,</p> <p>Dave the Potter, Laban Carrick Hill, (RL 5.6)</p> <p>George Washington's Unsung Heroes: He Couldn't Have Done It without Them. The Men and Women of the American Revolution, by Marc J. Stockwell-Moniz (RL 5)</p> <p>Meadows, Daisy -- Fiona the flute fairy (RL3.9)</p> <p>Tubby the Tuba, by Paul Tripp (RL 2.9)</p>	<p><b>MILITARY HEROES</b></p> <p>Washington is Burning!: the War of 1812, by Alvin R. Cunningham ((RL 6.3)</p> <p>History for Kids: The Illustrated Life of Napoleon Bonaparte, by Charles River Editors (Grade 3-4)</p> <p>Napoleon to Lady Liberty: The World of the 1800's (Draw and Write Through History, 5)</p> <p>Napoleon Bonaparte: Emperor of France by G. Bailey (Grades 4 - 9)</p> <p>Napoleon: The Story of the Little Corporal, by Robert Burleigh (Grades 4 - 9)</p>
<p><b>FAMILY OF INSTRUMENTS</b></p> <p>The Story of the Orchestra: Listen while you learn about the instruments, the music and the composers who wrote the music!, by Robert T. Levine (RL 6.7)</p> <p>How to draw musical instruments, by Barbara Soloff Levy (Interest 3 -6)</p> <p>Koscielniak, <i>The Story of the Incredible Orchestra</i></p> <p>Hayes, Ann -- Meet the orchestra (Grades 3 - 4), great illustrations</p> <p>Helsby, Genevieve -- Those amazing musical instruments! : your guide to the orchestra through sounds and stories</p>	<p><b>COMPOSERS</b></p> <p>Beethoven Lives Upstairs, by Bara Nichol (Interest 3-6)</p> <p>The Heroic Symphony, by Anna Harwell Celenza (RL 3)</p> <p>Beethoven: The Composer as Hero by Philippe A. Autexier</p> <p>The Life and Times of John Philip Sousa by Susan Zannos</p> <p>John Philip Sousa, by Mike Venezia</p> <p>Peter Tchaikovsky, by Mike Venezia</p> <p>Antonio Vivaldi, by Olivier Baumont (RL 5.7)</p> <p>Vivaldi's Four Seasons, by Anna Harwell Celenza (RL4.0) With CD</p>

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An excerpt from an article on the Brookings Institute website, entitled **Creating their own worlds: Arts and learning**, by Thalia R. Goldstein (Professor of Applied Developmental Psychology and former actress/dancer), June 3,2016.

"You don't have to teach a young child to play. You don't have to teach them to be creative. Children are naturally, deeply creative.

In fact, any time a child does or learns something new they have to be creative in their own, small way. They have to come up with something original, which they've never done before, and something useful, which can be used to solve the problem they may be working on. Although this type of creativity may not be what we think of as being behind the great works of Picasso or Bach, the important connection between play and the arts cannot be overstated.

While it's easy for a young child to be creative before formal schooling, when their only job is to play and explore, it's hard for children to retain that same sense of creative freedom once they've entered the classroom. Because of the current emphases on curriculum standards, the rigidity of students' lessons deprives them of the best way of learning: through personal exploration and discovery.

Early schooling has become more academically focused, with kindergarten especially noted for moving away from child-directed activities and, disturbingly, towards high pressure teacher-led pedagogy. Engagement in the arts—which emphasizes personal ways of knowing, thinking about the self, and discovery—may be key to providing children with creative experiences. Fiction generally can be thought of as a safe space for trial and error: In fiction, children can make mistakes without consequences and try out different cognitive and emotional strategies. The arts, particularly theater, create that safe space to be filled with whatever topic the child chooses."

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