

Middle School General Music Unit Plan Overview

Name: Alyssa Loufman

Unit Topic/Title: Mbira

Detailed Unit Description:

1. After studying African music for five days, students will focus specifically on the African instrument the mbira (and the modern form called the kalimba). First they will read an article and watch videos of music produced on the mbira. Then each student will make his/her own mbira using the design found at <http://dennishavlena.com/bobbypin.htm>. They will tune the instruments as close to a G Major scale as possible. They will have a chance to determine by ear simple well-known melodies. The students will learn certain melodies by rote from the teacher. Then they will invent a system of notation that can be used when playing the mbira and compose and perform music using this system of notation.

List Unit Objectives:

2. Students will gain an understanding of the uses of the mbira in various settings, especially in the religious practices of Zimbabwe
3. Students will be able to identify the sound of the African instrument the mbira
4. Students will learn how to make an mbira according to <http://dennishavlena.com/bobbypin.htm> and understand its acoustical properties
5. Students will learn how to play simple melodies on their home-made mbiras
6. Students will invent a system of notation that can be used when playing the mbira
7. Students will compose music on the mbira

Materials List and Budget (if any):

Item(s)	Qty.	Cost	Source/Vendor
Computers on which students can watch these videos: http://www.youtube.com/watch?v=tIPORpN27CY&NR=1 http://www.youtube.com/watch?v=FmCt8aGrwJc&feature=related	25	Computer lab provided	Provided
Electric drill	1	Free	Borrow from maintenance

Large bobby pins	225	About \$8	Walgreens
3/16" or 1/4" solid or plywood, 4" by 6"	25	About \$40	Lumber yard
3/8" square by 4" long hardwood	25	About \$5	Lumber yard
1/4" square by 4" long hardwood	25	About \$5	Lumber yard
3/4" woodscrews	125	About \$3	Hardware store
Bottle of wood glue	2	About \$5	Hardware store

Justification. (What is the value of this Unit. How does it connect to students' lives? Why teach it?):

This unit follows up on the African music unit which helps students explore the use of music in a different culture and geographical location than their own. The students can learn more about African music and how it sounds as well as its roles in society (specifically in the spiritual life of people in Zimbabwe). They can further develop their understanding of the personal, emotional, and spiritual power of music and how this plays into the use of music throughout the world. They also have the chance to build something they can be proud of and to explore the properties of musical sound as they form and tune the instruments. Many components essential to a complete music education are included in this unit including playing music by ear, learning music by rote, notating music, and composing music.

Middle School General Music Unit Outline

Name: Alyssa Loufman

Unit Topic/Title: Mbira Unit

Day	Objectives for the Day	Learning Activities to Meet Objectives	Michigan State Learning Standards Incorporated into Lesson	Materials Needed	Assignments & Assessments
1.	<p><u>Mbira</u></p> <ol style="list-style-type: none"> Students will gain an understanding of the uses of the mbira in various settings, especially in the religious practices of Zimbabwe Students will be able to identify the sound of the African instrument the mbira 	<p>Students will work in the computer lab. They will each read the National Geographic article and watch the two YouTube videos. Then they will answer questions on the Mbira worksheet.</p>	<p>Middle School Content Standard 3: All students will analyze, describe and evaluate works of art.</p> <p>2. Analyze the uses of elements of music in aural examples representing diverse genres and cultures.</p> <p>Content Standard 4: All students will understand, analyze, and describe the arts in their historical, social, and cultural contexts.</p> <p>1. Describe distinguishing characteristics of representative music</p>	Computers	Reading the article, watching the videos, answering the questions on the worksheet

			<p>genres and styles from a variety of cultures.</p> <p>3. Compare, in several cultures of the world, functions music serves, roles of musicians, and conditions under which music is typically performed.</p>		
2.	<p>3. Students will learn how to make an mbira according to http://dennishavlena.com/bobypin.htm and understand its acoustical properties</p>	<p>The teacher will give each student the directions for making mbiras. The teacher will explain why this design allows for an authentic-sounding instrument and the class will discuss the acoustical properties of the materials being used. The students will work on making their mbiras and help one another if needed. The teacher will use an electric drill for the screws.</p>	<p>Content Standard 5: All students will recognize, analyze, and describe connections among the arts; between the arts and other disciplines; between the arts and everyday life.</p> <p>2. Describe ways in which the principles and subject matter of other disciplines are related to music.</p>	<p>Bobby pins, wood, screws, wood glue</p>	<p>Following the directions for making the mbira</p>
3.	<p>3. Students will learn how to make an mbira according to http://dennishavlena.com/bobypin.htm and understand its acoustical properties</p> <p>4. Students will learn how to play simple melodies when</p>	<p>Students will finish up making their mbiras. When students are finished making the instrument and tuning it to a G major scale, they will be able to play the instruments on their own.</p>	<p>Content Standard 5: All students will recognize, analyze, and describe connections among the arts; between the arts and other disciplines; between the arts and everyday life.</p>	<p>Bobby pins, wood, screws, wood glue</p>	<p>Finishing the mbira, tuning the mbira properly</p>

	given only the notes in a major scale	They will be asked to try to play well-known melodies.	<p>2. Describe ways in which the principles and subject matter of other disciplines are related to music.</p> <p>Content Standard 1: All students will apply skills and knowledge to perform in the arts.</p> <p>7. Play simple melodies and harmonic accompaniments by ear.</p>		
4.	4. Students will learn how to play simple melodies when given only the notes in a major scale	Students will have some time to play their instruments individually. Then the teacher will teach the class several simple melodies by rote. The teacher will explain that this method of teaching is called “rote” teaching and that mbira music is traditionally learned by rote. Then students will work in pairs playing melodies and accompaniments taught by the teacher.	<p>Content Standard 1: All students will apply skills and knowledge to perform in the arts.</p> <p>1. Sing and play with expression and technical accuracy a repertoire of vocal and instrumental literature, including some songs performed from memory.</p>	Mbira	Playing the melodies correctly
5.	<p>5. Students will invent a system of notation that can be used when playing the mbira</p> <p>6. Students will compose music</p>	The students will complete their final assignment. They will work in pairs. Each pair will come up with a	<p>Content Standard 2: All students will apply skills and knowledge to create in</p>	Mbira	Assessment of each student by teacher (see rubric)

	<p>on the mbira</p>	<p>notation system for mbira music. Then each pair will compose a short piece of music (between 15 and 30 seconds long). Lastly, the pairs will perform their composition in unison in front of the class.</p>	<p>the arts.</p> <p>4. Compose short pieces within specified guidelines.</p> <p>Content Standard 1: All students will apply skills and knowledge to perform in the arts.</p> <p>5. Perform accurately, with appropriate technique, on at least one instrument —solo, in small and large ensembles.</p>		
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Mbira Unit Materials

Mbira

From <http://worldmusic.nationalgeographic.com>

Mbira Overview:

The peaceful, lulling, polyrhythmic cycles of the Shona mbira music of Zimbabwe have become a world-music staple. The standard mbira *dzavadzimu* consists of 22 iron prongs tightly clamped to a hard slab of mubvaropa wood, which acts as a soundboard. These metal keys are arranged in three banks, what mbira master Ephant Mujuru called the voice of the children, the voice of the adults and the voice of the elders. Although the metal keys were originally smelted directly from rock containing iron ore, these days they are often made from recycled sofa springs, bicycle spokes, car seat springs and other materials.

There are several types of mbira, but the most popular is the mbira *dzavadzimu*, meaning literally "mbira of the ancestor spirits," a reference to the instrument's traditional use and function in religious ceremonies. Some traditional musicians object to this name because they say that all mbiras belong to the spirits. Similarly, many object to the description of the instrument as a "thumb piano" because this term describes an African instrument only by making reference to a European one and because mbira players use not only their thumbs but also their right forefinger and sometimes others. But by now, both mbira and thumb piano are so widely disseminated that they're pretty much inescapable, however problematic.

The international rise of mbira began to gather steam after the 1976 publication of Paul Berliner's landmark book *The Soul of Mbira* (University of Chicago Press), although it's worth pointing out that 10 years earlier a stage show called *Wait a Minim* played at the John Golden Theatre in London, featuring mbira music arranged and directed by Andrew Tracey, son of the legendary South African field recordist Hugh Tracey. These were early events in a steady process of discovery of Shona music around the world. Indeed the instrument is now studied and played by so many musicians, in the United States and Europe particularly, that there may already be more mbira players outside Zimbabwe than within it.

That said, mbira is and will always remain first and foremost Zimbabwean music, both in its traditional, religious manifestations and in its ever growing repertoire of pop adaptations. Through recordings and international tours by mbira artists such as Stella Chiweshe, Forward Kwenda, the late Dumisani Maraire and Ephant Mujuru, Beauler Dyoko and Cosmos Magaya the instrument and the music continue to reach new audiences all the time.

Zimbabwe's mbiras—such as mbira *dzavadzimu*, *njari*, *matepe* and the smaller *karimba*—are part of a larger family of African lamellophones that includes the Congolese *likembe* and *sanza*, the Tanzanian *ilimba*, the *kalimba* and a variety of other variants. But it is important to differentiate these instruments. The Shona mbira *dzavadzimu* in particular has both musical and ceremonial aspects that are quite unique. To confuse all African lamellophones under the generic term *mbira*, as many do, is similar to lumping together banjos, lutes, mandolins, and all varieties of guitar under a single heading. A lot gets lost in the mix.

The mbira is usually played inside a large, empty calabash called a *deze*, which acts to amplify the sound. A stick is used to wedge the mbira securely inside the gourd. The mbira is typically played with the two thumbs stroking down and the right forefinger stroking up. A wire strung with bottle caps is generally strung over the lower portion of the soundboard, and bottle caps—at one time, shells—are often strung around the edges of the gourd, producing an intense buzzing sound. Adding a wake-up element to the soothing, bell-like tones of the mbira, the buzzing is considered to be an essential part of the music. Some modern recordings of mbira eliminate the buzzing in order to feature the pure tones of the iron prongs. This, too, is controversial.

There are many different mbira tunings, chosen according to personal preference. The *nyamaropa* and *gandanga* tunings are probably the most common, although there are lots of variations, including the same relative tuning set at different pitch levels. Most mbira groups settle on a particular tuning and use it consistently, although some newer groups, notably Mbira Dzenharira, are experimenting with combining differently tuned mbiras. A composition played on differently tuned mbiras is considered to be the same piece as long as the keys are played in the same sequence. Traditionally, a piece is played on two or three instruments using the same tuning.

For centuries, mbira music's main function was not entertainment but rather a way to contact the spirit world in all-night *bira* ceremonies. The songs and sound of mbira attracted the ancestor spirits, who provided advice and council by way of a spirit medium. The traditional repertoire of ceremonial mbira music consists of hundreds of pieces, some of which are thought to be more than 700 years old. Each piece in the repertoire is appropriate to particular types of spirit ceremonies. In ceremonies honoring a family ancestor, favorite pieces of the ancestor being called may be played. Ceremonies honoring deceased chiefs or warrior ceremonies may require older, more traditional pieces. Ceremonies for the powerful guardian and nature spirits would be the most ancient and traditional pieces. In this manner, pieces are played over and over again and passed from generation to generation.

Mbira players are often said to be hearing the sound of mbira constantly, even while sleeping. Many players talk about hearing a piece in a dream and then waking up able to play it. As such, mbira pieces are considered to be pre-existent, emanating from the spirit world, not so much composed as recovered.

An mbira ceremony is called a *bira*, and it can take many forms. Used properly, the Shona believe that mbira music can bring rain or sun, chase away harmful spirits and cure illnesses. Mbira music has a profound role in death ceremonies. A *bira* is played for a week following the death of a chief, even before the community is informed of his passing. Approximately one year after a person's physical death another ceremony is performed and the individual's spirit is welcomed back into the community to take its place among the ancestors.

There are also secular *biras*, such as those performed at weddings, the inaugurations of new chiefs and government events such as Independence Day and international conferences. The mbira also accompanies a large repertoire of traditional and modern children's songs and allegorical fables.

A Shona mbira piece usually consists of a basic cyclical pattern that includes numerous intertwined melodies, often with contrasting and syncopated rhythms. Within these patterns, there are extensive possibilities for rhythmic and melodic variation. Each performance of an mbira piece is a little like a great jazz rendition of a standard composition. The identity of the piece may be clear and the individual musician's typical style is evident, but each time the performance is fresh, new and totally expressive of the present moment.

Each piece in the traditional repertoire includes a leading part (*kushaura*) and an intertwining part (*kutsinhira*). Because mbira players are considered to be hearing the sound of the mbira continuously, when the kushaura musician begins to play there is no fixed point in the cycle to be considered as the "beginning." The player is merely joining in with the music already being heard. In the same spirit, the secondary player will enter the piece at whatever point he wishes. The interlocking mbira parts result in a compact yet overflowing richness of polyphony and polyrhythms.

Mbira music is especially noteworthy for its marriage of 4/4 and 3/4 time. Most pieces can be thought of as a sequence of four 12-beat phrases. Those 12 beats can be divided into three groups of four, or four groups of three. Often, the music is not clearly one time signature or the other but rather a beautifully ambiguous combination of the two.

Once the players have established the piece and the tempo, the hosho shakers join in, creating a consistent rhythm and completing the mbira ensemble. Occasionally, ngoma hand drums also participate. In mbira music, these drums are not used so much as a rhythmic foundation, but as conversation and commentary. However, as a piece progresses the ngoma may increasingly drive and guide the piece rhythmically.

Rarely, a virtuoso mbira player will perform a ceremony alone. This requires an extremely complex solo style that must leave both musician and listeners satisfied that both kushaura and kutsinhira are present. This type of solo style is very specific to the individual musician. Traditional mbira pieces were probably first played on guitars and other modern instruments as long ago as the 1950s, although the first recorded examples come from the late 1960s. This practice became far more common following the success of Thomas Mapfumo, who began singing in Shona and using traditional mbira songs as the basis for his pop compositions in about 1972. When combined with political messages offering encouragement to the guerilla fighters seeking to liberate the country from authoritarian white rule, mbira music became a powerful force in a fast-changing pop culture.

Mapfumo's *chimurenga* music, named for the freedom fighters, threw the door wide open, and since Zimbabwe's 1979 independence many pop groups have incorporated mbira music and even the instrument itself—often amplified—into their sounds. As Mapfumo's music has evolved, he has encouraged his mbira players to branch into all kinds of nontraditional music. In this way, the instrument and the genre are growing and advancing all the time.

– Banning Eyre, *Courtesy Afropop Worldwide: www.afropop.org with material adapted from writing by Erica Azim*

Worksheet: The Mbira

1. How many prongs are on the standard mbira dzavadzimu? How are they arranged?

2. What is the literal translation of mbira dzavadzimu?

3. From what country did mbira music originate?

4. What finger(s) is/are used to play the mbira?

5. What is the name of the larger family of instruments to which the mbira belongs?

6. What is used to amplify the sound of the mbira?

7. What role do mbiras play in all-night *bira* ceremonies?

8. Describe a typical Shona mbira piece of music.

9. In the second video (of the two men playing mbiras) what is making the buzzing sounds on the mbira with a *deze* around it?

10. Based on the sound of the music from these videos, how is mbira music similar to American pop music?

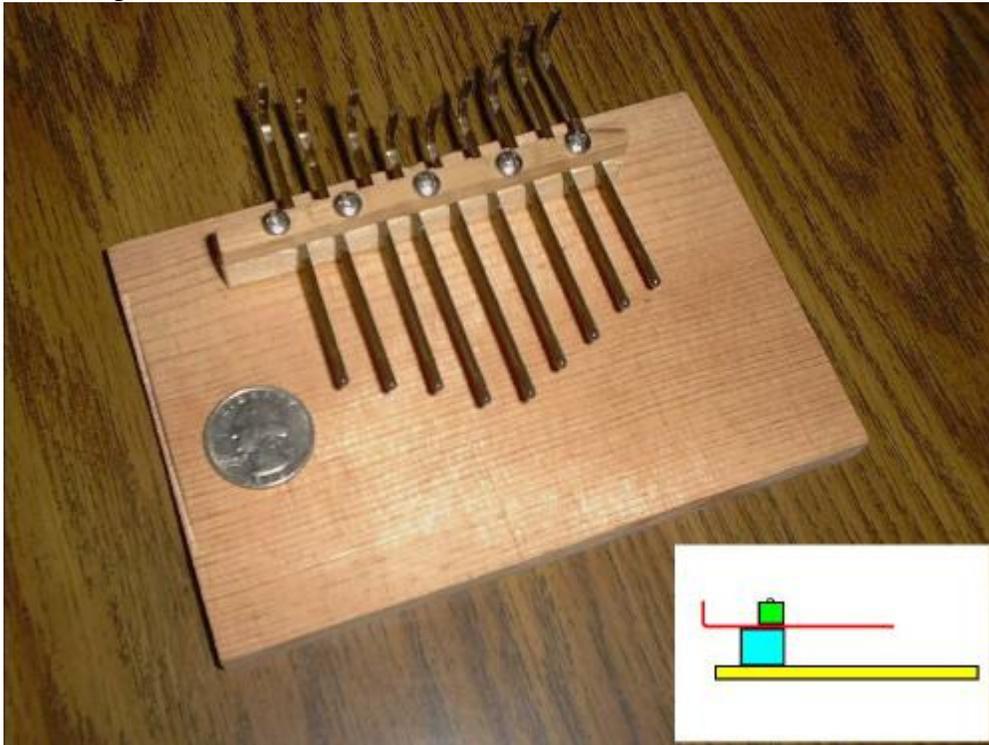
Worksheet Key: The Mbira

1. How many prongs are on the standard mbira *dzavadzimu*? How are they arranged?
There are 22 prongs; They are arranged in 3 banks.
2. What is the literal translation of mbira *dzavadzimu*?
Mbira *dzavadzimu* literally means "mbira of the ancestor spirits".
3. From what country did mbira music originate?
It originated from Zimbabwe.
4. What finger(s) is/are used to play the mbira?
The thumbs, the right forefinger, and sometimes other fingers are used.
5. What is the name of the larger family of instruments to which the mbira belongs?
They belong to the lamellophone family.
6. What is used to amplify the sound of the mbira?
An empty gourd called a *deze* is used to amplify the mbira.
7. What role do mbiras play in all-night *bira* ceremonies?
The mbira attracted the ancestor spirits, who provided advice and council by way of a spirit medium. Mbira music can bring rain or sun, chase away harmful spirits and cure illnesses.
8. Describe a typical Shona mbira piece of music.
A Shona mbira piece consists of repeating patterns. There is not just one melody, but several melodies that use complex rhythms. A piece of music is usually performed differently each time it is played. Each piece includes a leading part and an intertwining part.
9. In the second video (of the two men playing mbiras) what is making the buzzing sounds on the mbira with a *deze* around it?
There are bottle caps or some other round object taped around the outside of the *deze*.
10. Based on the sound of the music from these videos, how is mbira music similar to American pop music?
The mbira music in the second video has an instrumental introduction before the voices come in just like in American pop music. Also, the phrases and the words are repeated in mbira music like lyrics and phrases in an American pop song. The music has a steady beat that someone could dance to just like many pop songs.

A Kalimba Using Bobby-Pins as Twangers.

This extremely simple kalimba is a real instrument --- playability is great. Tone and volume is surprisingly good too. I made it to see just how simple a kalimba can be made.

It's construction needs little or no description -- everything can be seen in the photo.



I made this kalimba to have the same scale as a bagpipe (9 notes). There is no sound-box, only a "sound-board".

The type bobby-pin used is one size bigger than "regular" bobby-pins --- they are about 2-5/8" long & a small bit wider than 1/16". I used Goody brand, product number 01457.

- Bend each bobby-pin to right angles (careful - they can break).
- With each of the pins, cut off all but a half inch of the side with the bend. (I dulled the jagged ends with a grinder)
- The soundboard is a piece of 3/16" or 1/4" solid or plywood, 4" by 6". Absolutely nothing here is critical.
- I used a piece of 3/8" square by 4" long hardwood that the twangers rest on. This piece is glued to the soundboard.

- For the piece of wood that pushes down on the twangers, I used hardwood - 1/4" square by 4" long. Five evenly spaced 3/4" woodscrews securely clamp the twangers between these two pieces of hardwood (three screws didn't hold it good enough). Make sure that the front edges of the two hardwood pieces are flush.
- The only awkward thing is holding and positioning the nine twangers while tightening the five screws. My advice is to not tighten the screws too tight at first --- once the twangers are positioned properly, then tighten them. I also found it a help to clamp the instrument in a vise while installing and tuning the twangers.
- Tuning is easy, but may require a slight temporary untightening of the screws.

Do not remove the plastic tips of the bobby-pins as they make comfortable twanger ends.

It took me a bit less than a half-hour, start to finish, to build.

I made a simple box for an experiment, but it didn't add much volume, so went back to just a single board.

My first bobby-pin kalimba had the twanger base mounted along the narrow edge of the soundboard, but the tone of the shorter twangers was not good. By instead mounting the twanger base along the wider edge of the soundboard (and about 3/8" in from the edge), the tone improved immensely.

This is a good tuning:

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ti so mi do * re fa la do'
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* = a full step
below "do"

The short length of the bobby-pins more or less limits what key the instrument can be tuned in -- Optimum sound/tone in my case (where the lowest note uses almost the full length of the bobby-pin) was when the instrument was tuned in the key of G but considering that this simple kalimba will likely never be played in a band, the key is relatively unimportant.

Fun little thing!

I made another such instrument, but used regular sized (smaller) bobby-pins instead. it worked fine too --- had a different, but also pleasant tone.

Dennis Havlena - W8MI
Mackinac Straits, northern Michigan
10/14/2001

**Mbira Unit Final Assignment
Rubric**

The student has invented a notation system that is useable on the mbira.	/10
The student composed functional music for the mbira between fifteen and thirty seconds long.	/10
The student performed using proper playing techniques on the mbira.	/10
The student demonstrated his/her understanding of the specific instrument.	/5
The student demonstrated general knowledge of music (based on the musical information that has been presented thus far in the class).	/5

Total