# Module 2
# "The Sounds of Music"

## • What This Module is About

You have learned from Module 1 that musical sounds are characterized by timbre, duration, pitch, and intensity. In this second module, you will focus on the study of ***timbre***, the quality of sounds. You will encounter the wide variety of sounds used in music-making – the sounds of the human voice, of various musical instruments from different parts of the world, and of new and unusual sound sources used in contemporary compositions.

## • What You are Expected to Learn

At the end of this module, you should be able to:

1. sing expressively with correct pitch and rhythm using good breath support and control
2. recognize a soprano, alto, tenor, bass, and different combinations of voices in a vocal performance
3. identify whether a musical instrument being shown or played is an aerophone, chordophone, membranophone, idiophone, or electrophone
4. recognize the various instrumental groups commonly found in the Philippines and other Asian countries as well as those in the West
5. discover the use of unusual sources of sounds used in present-day musical works
6. create music using unusual sources of sounds
7. perform created compositions on improvised musical instruments

## • How You Can Learn from This Module

For you to benefit most from this module, you must –

1. carefully read the discussions and study illustrations, diagrams, charts, etc.
2. complete each learning activity before proceeding to the next section, and look at the Answer Key only after you have finished tests and activities
3. keep going until you finish the module
4. ask for help from your teacher-facilitator when you have questions, when an activity is difficult to do, and when you need the audio materials for the listening activities

## • What You will Do in This Module

Because this module is all about different kinds of musical sounds, you will have a lot of *listening* activities from **CD 1 Tracks 7-24** and **CD 2 Tracks 1-25**, so you must have a CD player ready. You will be asked to *make* improvised musical instruments using objects in

your surroundings. You will also ***create*** and ***perform*** simple rhythmic compositions using improvised and traditional instruments.

Tests and some learning activities require you to ***answer*** questions. **Do not write anything on this module** because other students will also be using it. ***Write*** **your answers in your Music Notebook.** ***Write*** the title of the test or activity, draw a box beside it, and then ***write*** your answers below the title. ***Look*** at the **Answer Key found at the end of this module to check your work, *only when you are instructed to do so* and *only after completing a test or activity*. Each time you finish a test or activity, *put a check on the box***. The examples below will guide you.

| | | |
|---|---|---|
| *Module 1*<br>*Pretest* [ ]<br>*1.*<br>*2.*<br>*3.* | *Module 1*<br>*Lesson 1, Activity 1* [ ]<br>*1.*<br>*2.*<br>*3.* | *Module 1*<br>*Self-test I* [ ]<br>*1.*<br>*2.*<br>*3.* |

## • *What to Do Before You Begin: Pretest* [ ]

Before proceeding to your lessons, take this Pretest. It will tell you what you already know and what you still need to learn about the subject of musical timbre.

I. ***Write*** the letter of the correct answer.

1. The voice is produced when the _____ vibrates as air from the lungs passes through the voice box.
   a. vocal cords
   b. diaphragm
   c. tongue
   d. throat

2. The guitar's body functions as a resonator that _____.
   a. provides energy for vibration
   b. amplifies and shapes sound
   c. produces pitch
   d. dampens sound

3. If the high, light and bright male voice is called a tenor, then the low, heavy and often dark male voice is called a _____.
   a. countertenor
   b. contralto
   c. baritone
   d. bass

4. The _____ is a small group of mixed voices, often singing in soprano, alto, tenor, and bass parts.
   a. trio
   b. band
   c. ensemble
   d. choir

5. The _____ is a hybrid aerophone made of brass, with a reed in its mouthpiece.

a. trumpet
b. trombone
c. clarinet
d. saxophone

6. An example of a free reed aerophone is the _____.
a. panpipe
b. bagpipe
c. windpipe
d. reedpipe

7. Harps, zithers, and lutes are usually played by _____ their strings.
a. plucking
b. bowing
c. striking
d. pressing

8. The _____ is a chordophone that makes sound when its strings are struck.
a. fiddle
b. lyre
b. piano
d. electric keyboard

9. Idiophones are musical instruments that produce sound by means of a vibrating _____.
a. skin
b. current
c. body
d. string

10. Cymbals are _____ idiophones.
a. concussive
b. percussive
c. abrasive
d. sensitive

11. Different kinds of drums are examples of _____.
a. chordophones
b. membranophones
c. idiophones
d. electrophones

12. _____ are the only kind of drums in the symphony orchestra that have definite pitch.
a. Congo drums
b. Bongo drums
c. Goblet drums
d. Kettle drums

13. The _____ is an example of an electrophone.
a. mouse pad
b. drum pad
c. microphone
d. telephone

14. The _____ ensemble is an instrumental group made up of the <u>same</u> instrument in graduated sizes.
a. rondalla
b. symphony orchestra
c. anklung
d. gamelan

15. The Philippine rondalla and Western orchestra both have _____ instruments.
a. electronic
b. brass
c. wind
d. stringed

II. *Listen* to three Japanese instruments, and then *tell* whether each one is an aerophone, chordophone, idiophone, or membranophone. (CD1, Tracks 7-9)

1. Shamisen _____
2. Shakuhachi _____
3. Taiko _____

III. *Listen* to *"The Prayer,"* a well-known duet, and then *tell* whether each voice you hear is a soprano, alto, tenor, or bass. (CD1, Track 10)

1. Female voice _____
2. Male voice _____

*Check* your answers using the **Answer Key**. *Record* your score in your notebook.

Perfect Score: 20 My Score: _____

IV. Sing a folk song and ask your family or friend to rate you using the attached Rubric for Vocal Music

Perfect Score: 16 My Score: _____

*Record* your score in your notebook.

## Lesson 1: "Sing-Galing!"

There are many sounds around us. We hear sounds from nature and from animals. We hear sounds when we are inside a building or out on a street. We hear sounds from various instruments and objects. Among the most common sounds we hear are those made by people.

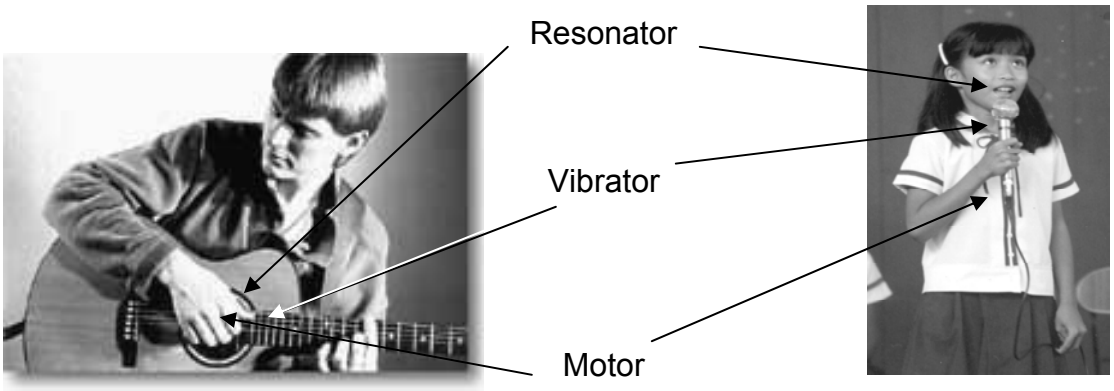
Before man discovered how to use objects in his environment to invent musical instruments, he used his body to express and communicate thoughts and feelings in his everyday life. Clapping the hands, stomping the feet, and swaying the body rhythmically were very easy and natural to do. Man also learned how to use what is perhaps the most amazing musical tool of all – the voice. The human voice can produce a wide variety of sounds that can be used to make music.

How the Vocal Instrument Works

Think of an acoustic guitar. It produces sound when one or more of its strings vibrate. However, the strings cannot vibrate on their own; they need an energy source or a motor, just like in machines. This source of energy is the finger that plucks the strings. The guitar's body, with its hollow space and sound hole, acts a resonator that makes the sound louder and shapes its tonal quality (timbre).

The singer's instrument is his or her body. Just like the guitar and all other musical instruments, the body also has a vibrator that produces pitched sounds, a motor that gets the vibrator going, and resonators that amplify the voice and shape its tonal quality.

Figure 1: The Guitar and the Body




When you inhale, air is stored in the lungs. When you exhale, all the parts of the ***motor*** – lungs, muscles, and ribs – work together to push air upwards through the windpipe. In the process, air passes through the voice box, and the vocal cords ***vibrate*** in order to produce a tone with the desired pitch. The hollow spaces in the throat, mouth, and cavities behind the nose act as ***resonators*** and help shape the quality of sound.

How to Sing Properly

The motor, vibrator, and resonator sections of the singer's body make-up what is called the ***vocal instrument***. They must be trained to work well together through constant and correct practice. Breathing for singing is quite different from that required by sports and other strenuous activities. A singer must apply muscular control of the breath to be able to support a good tone and sing through an entire phrase.

This type of breathing requires the efficient use of the ***diaphragm***, a thin sheet of muscle separating the respiratory system from the digestive system in the body. The diaphragm controls the release of air, allowing the singer to sing long phrases on stable tones. A good indication that a singer is breathing diaphragmatically is when there is no sign of movement

on the upper chest and shoulders when inhaling and exhaling. Instead, movement should be seen on the abdominal area and upper chest all around to the back of the body.

The next thing you must remember is to sing with an ***"open" throat***. As the vocal cords vibrate, it is important that the muscles in the throat are relaxed. Singing with a relaxed, open throat will greatly help to produce free tones. A good way to master the open throat position is to practice yawning. The position of your tongue, soft palate, and throat when you are about to yawn is the ideal position when singing.

**Activity 1: Breathing Exercise [ ]**

*Practice breathing* correctly. *Take* a deep breath through your nose then *exhale* through the mouth (as if you are blowing through a straw). *Make sure* your lungs and muscles *expand* very well as you inhale. Don't let your shoulders and upper chest move. As you inhale, there should be outward movement in your abdominal and lower chest areas all around to your back. As you exhale, there should be an inward movement in the same areas. *Count* up to four as you exhale, before taking your next breath. *Do* this ten times.

**Activity 2: Mouth Exercise [ ]**

*Drop* your jaw and *keep* your tongue relaxed on the floor of your mouth as you sing the tune of "Happy Birthday" on the syllable "ah." The mouth area should be as spacious as possible, and the tongue should not be bunched up or pulled back into the mouth. *Memorize* the feeling inside your mouth. This is the proper position for singing, especially on vowels. The tongue only moves when pronouncing consonants. After doing this twice, try singing the song using the words.

**Activity 3: Sing a Solo [ ]**

*Read* the text of this well-loved Visayan folk song, and then *listen* to a vocal demonstration on CD1, Track 11. *Learn* the song by listening to it repeatedly. When you are confident that you are singing the tune correctly, *perform* it before your family or friends. *Apply* what you have just learned about how to sing properly.

*"Usahay"*
*- Nitoy Gonzales -*

*Usahay, magadamgo ako*
*Ni ikaw ug ako nagkahigugmaay*
*Nganong damgohon ko ikaw*
*Damgohon sa kanunay*
*Sa akong kamingaw.*
*Usahay nagamahay ako*
*Nganong na buhi pa kalibutan*
*Nganong gitiaw-tiawan*
*Ang gugma ko kanimo, kanimo day.*

Classification of Voices

Every person's voice has a unique timbre. A woman's voice is different from a man's, just as a child's voice is different from that of an adult. Human voices are generally classified into four types: sopranos, altos, tenors, and basses. Study the table on the following page.

Although most people can be classified into these four types, there are still other categories into which male and female voices can be classified more specifically. For example, a ***mezzo soprano*** can also sing high pitches, but her voice is characteristically thicker and darker than other types of sopranos such that she is often asked to sing a song written for an alto. When a man's voice is not quite as high and brilliant as a tenor's but also not quite as low and dark as that of a bass, he is called a ***baritone***. Sometimes you will encounter men who sing so much like women, using their head voice; these men are classified as ***countertenors***. During childhood, all boys and girls are classified as sopranos until after their voices go through change during adolescence.

Table 1: Voice Classification

| | Female | Male |
|---|---|---|
| Range: high<br>Timbre: light and bright | **Soprano** | **Tenor** |
| Range: low<br>Timbre: thick, heavy, and often "dark" | **Alto** | **Bass** |

**Activity 4: CD1, Tracks 12-15 [ ]**

*Listen* to the following excerpts of songs sung by well-known Filipino and foreign artists. Can you tell which one is the soprano, alto, tenor, or bass? *Write* the letter of the correct voice classification on your notebook. *Check* your answers using the **Answer Key** at the end of this module.

____1. Jonathan Zaens (Filipino)
____2. Charlotte Church (Welsh)
____3. Luciano Pavarotti (Italian)
____4. Denyce Graves (American)

a. Soprano
b. Alto
c. Tenor
d. Bass

Combinations of Voices

Human voices can combine and blend together to produce a variety of textures. Voices may be combined to form the following –

***Duet*** – two voices
***Trio*** – three voices
***Quartet*** – four voices
***Quintet*** – five voices

→ Each voice often sings a different vocal part.

***Ensemble*** – a small group of mixed voices
***Choir*** – a large group of mixed voices

→ Voices sing in four parts – (soprano, alto, tenor, and bass).

**Activity 5: CD1, Track 10 [ ]**

*Listen* to "The Prayer" again a duet by pop singer Celine Dion with classical singer Andrea Bocelli. *Notice* how well they can sing together even if they are famous for using two very different vocal styles.

**Activity 6: CD1, Tracks 16-17 [ ]**

*Listen* to two famous Filipino choirs. *Compare* the timbre of the adult voices with that of the children's voices.

1. Philippine Madrigal Singers singing *"Bayan Ko"*
2. Mandaluyong Children's Chorus singing *"I Will"*

**Self-Test I [ ]**

*Fill in* the blanks with the correct answers.

1. The singer's instrument is his or her _____.
2. The voice is produced when the _____ _____ vibrate as air from the lungs passes through the voice box.
3. The _____ is a thin sheet of muscle separating the respiratory system from the digestive system and is important for breath support and control.
4. Singing with a relaxed, _____ throat will help a singer produce free tones.
5. The throat, _____, and the hollow spaces behind your nose are resonators that will help to amplify and shape the quality of your voice.
6. The high, light female voice is called _____.
7. A male singer whose voice is not quite as high and brilliant as a tenor's and not quite as low and dark as that of a bass is called a _____.
8. The vocal style often used by Regine Velasquez is _____.

9. When a soprano, an alto, a bass, and a tenor sing a song together with different vocal parts, they form a _____.
10. The voice of a 7-year old boy is classified as a _____.

*Check* your answers using the **Answer Key**. *Record* your score in your notebook.

Perfect Score: 10 My Score: _____

*Sing* the song Usahay and ask your family or friend to rate your performance using the attached Rubric for Vocal Music.

Perfect Score: 16 My Score: _____

Record your score in your notebook.

## Lesson 2: "Winds, Wires, and Windings"

There are many kinds of musical timbres. In the next three lessons, we will study various timbres produced by familiar and unfamiliar musical instruments. The sounds they produce depend on *the kind of materials they are made of*, *their size and shape*, *their function*, and *the way they are played*. Hornbostel and Sachs, two well-known musicologists, developed *a way of classifying musical instruments* around the world according to how they produce sounds. A musical instrument can be an ***aerophone***, ***chordophone***, ***idiophone***, ***membranophone***, or ***electrophone***.

**Activity 1: CD1, Track 18 [ ]**

Before proceeding to the lesson proper, *listen* to the music of Kenny G, a popular American saxophone player. As you listen, *encircle* the words below that describe the kind of sound made by the saxophone as he performs *"Silhouette."*

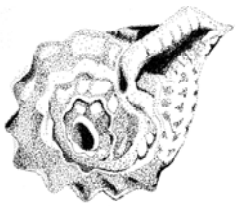
loud mellow smooth rough thick thin piercing harsh

Aerophones

The saxophone is an example of an ***aerophone***. An aerophone is an instrument that produces sounds when an air column vibrates inside an enclosed space, usually some sort of tubing or cylinder. There are many kinds of aerophones around the world. Some are made of bamboo, while others are made of wood, metal, etc. Others are fashioned from shells or animal horns.

Figure 2: Shell or Animal Horns

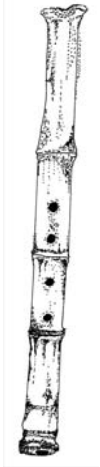
*Shofar,* Jewish ram's horn



*Budyong,* Philippine shell horn

***Pipes*** and ***flutes*** are a family of aerophones commonly found in many cultures. Some are played by blowing air into a hole (end-blown). Others are played by blowing air across a hole (side-blown or transverse). Air can be blown by either the mouth or the nose.

Figure 3A: End-blown Pipes and Flutes



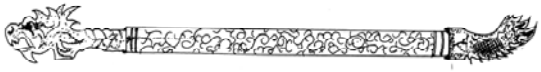
*Shakuhachi,* Japanese bamboo notch flute

*Diw-as,* Bontok panpipe (Northern Philippines)

*Didgeridoo,* aboriginal instrument from Australia, made from a long eucalyptus branch

Figure 3B: Side-blown or Transverse Flutes

*Plawta,* transverse flute from Southern Philippines



*Lung ti*, Chinese dragon flute

Modern Flute

**Activity 2: CD1, Tracks 19-22 [ ]**

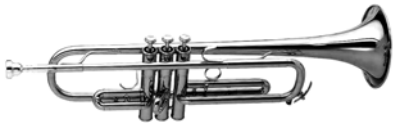
*Listen* to the following selections and *familiarize* yourself with the timbre of pipes and flutes.

1. *Shakuhachi*
2. *Didgeridoo*
3. *Tongali*
4. Modern flute (playing with the viola and harp)

Other aerophones have mouthpieces of various shapes and sizes. Among them are ***horns*** and ***brass wind instruments***. Many modern brass instruments have valves that control the pitch and sound (e.g. trumpet). They produce loud, brilliant tones and are ideal for fanfares, heralds, and hunting calls. Still there are other types of aerophones that have mouthpieces. ***Reed aerophones*** have slices of cane inserted into their mouthpiece.

Figure 4: Horns and Brass Instruments

French horn



Trumpet

Trombone

Tuba

*Nfir,* Moroccan trumpet used to signal the end of the Muslim fast called *Ramadan*

Figure 5A: Single Reed Aerophones

Clarinet

*Patottot,* single reed pipe (Northern Phils.)

Saxophone – a hybrid aerophone made of brass; combines a clarinet mouthpiece with oboe keys

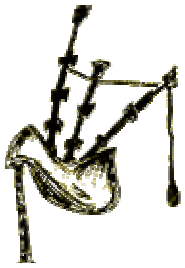
Figure 5B: Double Reed Aerophones


**Activity 3: CD1, Tracks 23-24 [ ]**

*Listen* to a clarinet (a Western reed instrument) playing with a piano, and to the *pei pok,* a single reed aerophone from Cambodia. In what way are their timbres similar? In what way are they different?

Playing aerophones requires the skill of taking breaths to sustain long musical phrases. Some musicians in various cultures tried to solve this problem by putting the reed in another part of the instrument instead of in the mouthpiece. These instruments are called ***free reed aerophones***. They produce a rough, strident sound called a "skirl." The bagpipe is a free reed aerophone. It is played by manually squeezing a bag filled with air. Accordions and mouth organs also belong to this special group of aerophones.

Figure 6: Free Reed Aerophones



*Biniou,* bagpipe
from France

*Sheng,* Chinese
mouth organ

Accordion

Harmonica or mouth organ

**Activity 4: CD2, Track 1 [ ]**

*Listen* to *"Hating Gabi"* by Antonio Molina, performed by Michael Dadap. *Guess* the classification of the instrument he is using. *Look* for the correct answer in the **Answer Key**.

Chordophones

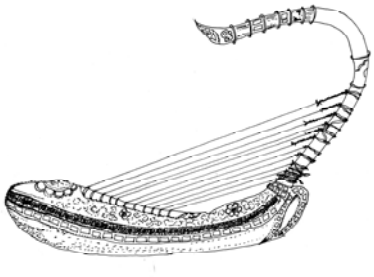
The instrument played by Michael Dadap is an example of another group of musical instruments called ***chordophones.*** Chordophones produce sound when a string or set of strings are made to vibrate either by plucking, strumming, bowing, or striking. The strings of chordophones may be made of animal hair, metal, plastic, etc.

Many chordophones belong to the harp, zither, and lute families. These instruments are primarily played by plucking. ***Harps*** and ***lyres*** are of ancient origin, and they are found all over the world. They are said to have descended from the musical bow. They are made of strings that stretch over a frame.

Figure 7: Harps and Lyres

*Beganna* or Poet's Lyre from Ethiopia

Modern Harp



*Saung-gauk,* Burmese arched harp

***Zithers***, on the other hand, are made of strings that stretch across a soundbox. The soundbox may be a gourd or a board made of bamboo or wood. They are played by plucking the strings.

Figure 8: Zithers

*Kulitong,* polychordal zither from Northern Luzon

Raft zither with gourd from Nigeria

*Koto,* Japanese zither

Psaltery

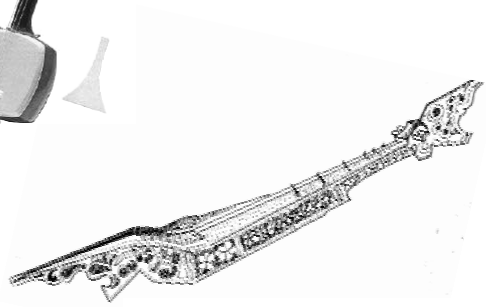
Like harps and zithers, ***lutes*** are also played by plucking, using either the fingers or a plectrum. The guitar that we know today belongs to the lute family of chordophones.

Figure 9: Lutes

*Ud,*
Middle Eastern lute

*Shamisen,* Japanese lute with plectrum

*Sitar,* Indian lute



*Kutyapi,* 2-stringed boat lute from Southern Philippines

**Activity 5: CD2, Tracks 2-5 [ ]**

<u>*Listen*</u> to these selections and get to know the sounds of various plucked chordophones.

1. Modern Harp
2. *Saung-gauk* (Burma)
3. *Kutyapi* (Southern Philippines)
4. *Sitar* and *tambura* (India)

***Viols*** and ***fiddles*** are chordophones that are played by bowing. Look at the examples.

Figure 10: Viols and Fiddles

*Gitgit,* 3-stringed fiddle
from Southern Philippines

Violin

Cello

**Activity 6: CD2, Tracks 6-7 [ ]**

*Listen* to bowed chordophones. First you will hear two very common examples – the violin and cello, playing a concerto with a symphony orchestra. Then you will hear the *gitgit,* a bowed fiddle of the Hanunoo. *Compare* the timbres of the three instruments.

Lastly, there are chordophones that are played by hitting or striking their strings. The *piano* belongs to this category. Its strings are struck by small hammers that are mechanically activated when a pianist presses the keys on the keyboard. The *dulcimer* is another chordophone that is played by striking the strings with mallets.

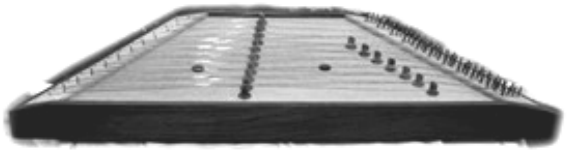


Figure 11: Dulcimer

**Activity 7: CD2, Track 8 [ ]**

*Listen* to Russell Cook play a hammer dulcimer, accompanied by other musicians (fiddle, harmonica, etc.) Which kind of chordophones do you think closely resembles the sound of the dulcimer – the harp/lyre, zither, lute, or viol/fiddle kind?

**Activity 8: Design-a-Chordophone [ ]**

*Gather* your materials: a shoebox, five rubber bands, cutter, and adhesive tape. *Cut* a hole on the shoebox cover before putting it on top of the shoebox. *Put* the shoebox in the middle of a rubber band and *tape* the rubber band in place. *Do* the same for the rest of the

rubber bands. *Stretch or loosen* the rubber bands to produce five different pitches when they are plucked. *Show* your home-made chordophone to your teacher-facilitator.

**Self-Test II [ ]**

*Fill in* the blanks with the correct answers.

1. Aerophones are musical instruments that produce sound by means of a vibrating _____ _____.
2. Pipes and _____ usually have a light, breathy, and mellow sound and are often used for personal leisure and courtship.
3. The _____ is a modern brass wind instrument that has a mouthpiece and valves that control pitch.
4. Aerophones like the clarinet have _____ that are inserted into their mouthpiece.
5. The _____ is a hybrid reed aerophone made of brass that has a mouthpiece like that of a clarinet and keys like that of an oboe.
6. The bagpipe, accordion, and mouth organ are _____ reed aerophones.
7. Lyres, zithers, and lutes are chordophones played by _____ the strings.
8. Some chordophones have a soundbox that serve to _____ and shape their sound.
9. The _____ is an example of a fiddle from Southern Philippines.
10. The _____ is a chordophone that produces sounds when its strings are struck by small hammers activated by pressing keys on the keyboard.

*Check* your answers using the **Answer Key**. *Record* your score in your notebook.

Perfect Score: 10 My Score: _____

## Lesson 3: "Shake, Rattle, and Roll"

Idiophones or membranophones are musical instruments that are played by hitting or striking. The part of the instrument that is struck vibrates to produce sound. The difference between them lies in what type of material the vibrating part is made of. The vibrating part of an ***idiophone*** may be made of bamboo, wood, bone, metal, etc. The vibrating part of a ***membranophone*** is made of animal skin or synthetic membrane stretched over a frame or hollow body. Both types of instruments may be definitely or indefinitely pitched.

**Activity 1: CD2, Track 9 [ ]**

*Listen* to a Maguindanaon *kulintang* ensemble from Southern Philippines. Can you *distinguish* between the sound of the gongs (idiophones) and the sound of the drum (membranophone)?

Idiophones

As previously mentioned, many idiophones are more specifically classified as ***percussive***, that is, they are played by striking or hitting them with the fingers, hands, beaters or mallets. There are also idiophones that are ***concussive***; they are sounded by clashing, clanging, or clicking two bodies (objects) against each other.

***Friction idiophones*** are played by scraping a stick against the instrument, or by scraping a coarse body against another. Bamboo scrapers and sand blocks are some examples. Other idiophones are classified as rattles, jingles, and shakers.

Figure 12: Percussive Idiophones

*Gabbang,* bamboo xylophone from Southern Philippines

Temple blocks

Triangle

*Kulintang,* graduated bossed gongs-in-a-row from Southern Philippines

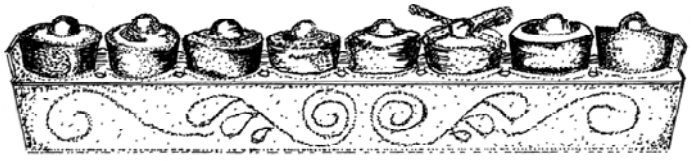
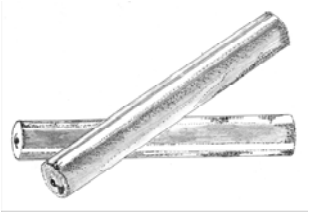


Figure 13: Concussive Idiophones

Cymbals

Castanets



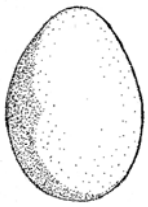
Claves

Figure 14: Rattles, Jingles, and Shakers

*Maracas*

*Cabaca*

*Eggshaker*



**Activity 2: CD2, Track 10 [ ]**

*Listen* to the first part of an orchestral piece by our National Artist for Music, Lucrecia Kasilag, titled *"Divertissement" (Allegro moderato).* The piece makes use of some idiophones. Aside from the piano and the other orchestral instruments, can you *hear* the idiophones that were used – bells, *kulintang* (gongs-in-a-row) and cymbals?

**Activity 3: Backyard Beat Band [ ]**

*Improvise* idiophones using materials in your backyard or neighborhood, and then use these instruments to *create* a rhythmic accompaniment to the folk song *"Bahay Kubo."* You may need help from an adult to do this activity.

1. Sand Blocks. Find two sheets of sandpaper and fix them firmly on two pieces of flat wood. Trim off excess sandpaper from the edges of the wood pieces.
2. Shakers. Get two small empty cans. Fill one can with any type of seeds you can find in your kitchen, or with tiny rocks, or with nails. Seal off the open end of the can using the bottom part of the other can. Be very careful! If you find it difficult to work with cans, substitute coconut shells. You can seal them with rugby or super glue.

3. Jingles. Flatten several metal bottle covers using a hammer. Bore a hole in the center of each by hammering a nail through it. Put a thin wire through the holes and make a ring out of it.

Membranophones

Inside restaurants and music bars, bands and combos often perform with a set of drums of varying sizes that provide the rhythm for their songs. At the end of contests, the winners are usually announced after an exciting drum roll. During town fiestas, parade dancers move to the beat of the drums. Among indigenous peoples, the drum is often used not only for dancing but also for accompanying rituals.

Figure 15: Drums

*Tabla,* single-headed drums from India

*Darabuka,* goblet drum from Egypt

*Timpani* or kettle drum

*Dabakan,* Maguindanaon tubular drum from Southern Philippines

***Drums*** belong to the category of ***membranophones***, that is, instruments that produce sound by means of a vibrating skin or membrane. The vibration is caused by beating the skin or membrane with the fingers or hands, or with some sort of sticks. They come in different shapes and sizes and are often named after their appearance. Most drums have indefinite pitch. The *timpani* or kettle drums are the only membranophones in the Western symphony orchestra that have definite pitch.

**Activity 4: CD2, Tracks 11-13 [ ]**

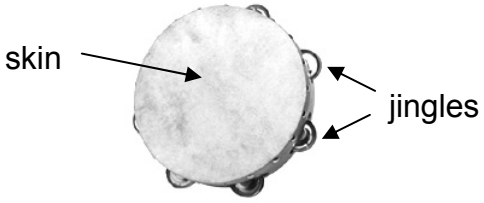
*Listen* to drums from three different Asian cultures.

1. *Dabakan* with gongs (Philippines)
2. *Tabla* with lutes (India)
3. *Taiko* (Japan)

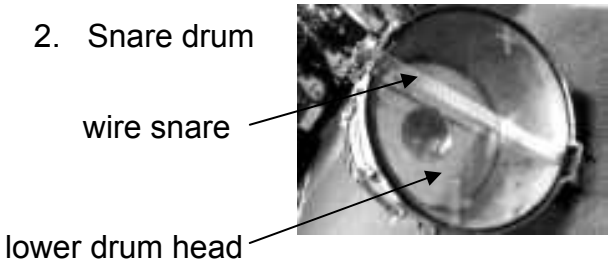
**Activity 5: Figure This Out [ ]**

*Classify* the following instruments. Are they idiophones or membranophones? Why do you say so? *Write* your answers in your notebook, and *check out* the **Answer Key** to see if you are correct.

1. Tambourine




2. Snare drum




**Self-Test III [ ]**

*Fill in* the blanks with the correct answers.

1. _____ are musical instruments with vibrating bodies made of bamboo, wood, metal, etc.
2. The xylophone is an example of a _____ idiophone.
3. The cymbals are an example of a _____ idiophone.
4. Bamboo scrapers and sand blocks are examples of _____ idiophones.
5. The _____ is a set of gongs in a row found in Southern Philippines.
6. Membranophones produce sounds by means of a vibrating _____ or membrane stretched over a frame or hollow body.
7. Drums are played by beating the skin or membrane with the fingers, hands, or _____.
8. The only definitely-pitched membranophones in the Western orchestra are the timpani or _____ drums.
9. The _____ is a tubular drum found in Southern Philippines.
10. The _____ is a frame drum with jingles.

*Check* your answers using the **Answer Key**. *Record* your score in your notebook.

Perfect Score: 10 My Score: _____

# Lesson 4: "New-found Sounds Around"

Since the 20th century, musicians have been utilizing new sources of sound to create musical compositions. Composers have explored timbres from nature and the environment, from unconventional ways of playing conventional instruments, and from pushing the human voice to previously unimaginable or unacceptable limits. With the advances in technology, composers have been able to use pre-recorded sounds, electronic instruments, synthesizers, and even computers to create musical compositions.

**Activity 1: CD2, Track 14 [ ]**

*Listen* to *"An American Symphony"* by Michael Kamen, an orchestral piece performed in the movie *Mr. Holland's Opus*. What kind of instruments can you hear aside from conventional orchestral instruments? *Check* your answers using the **Answer Key**.

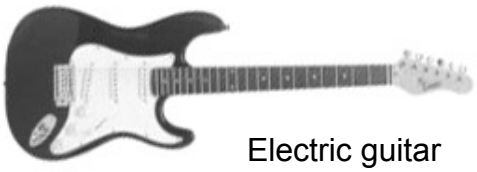
Electrophones

In the last two lessons of this module, you studied the four major classifications of musical instruments. There is yet another classification in which modern instruments like the ones you just heard in Activity 28 are categorized. These instruments that began to be widely used sometime in the middle of the 20th century are called ***electrophones.*** Electrophones are musical instruments that generate, amplify, or alter sounds by means of electric current.

The earliest usable electronic instrument was the Theremin, invented by Russian scientist L. Theremin in 1924. Today, many churches make use of electric organs instead of the pipe or reed organs of long ago. Younger generations around the world enjoy combo or band music that makes use of electric guitars and electronic keyboards. Smaller and thinner drum pads are taking the place of the basic drum set.

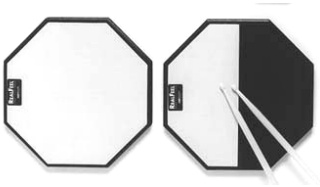
The musics of today (and of the future) are very much characterized by machine sounds. Composers and musicians make use of, not just electronic musical instruments like the ones shown below, but also synthesizers that can imitate other instruments or produce entirely new sounds. Music software on floppy or compact discs enable the computer to store, process, and create various musical sounds, turning it into an instant one-man orchestra or band.

Figure 16: Electrophones



Electric guitar

Amplifier (which electric guitars must be plugged into)



Drum pads contain electronic components under the surface


Electronic keyboard

Unconventional Sound Sources

Contemporary composers must have felt that they had exhausted the variety of timbres that can be produced by conventional musical instruments. This drove them to look for other sources of sound. Some have tried adding sounds from nature into their music. Some have tried using non-musical objects found in the environment (e.g. musical saw). These new sound sources were either pre-recorded or played live.

**Activity 2: CD2, Tracks 15-16 [ ]**

*Listen* to the following pieces that creatively use unconventional sounds to organize the music and/or enhance its expressiveness or impact.

1. *"Makaha Morning,"* by Daniel Ho (piano music with sounds of waves on a shore, soothing and transporting you to a serene morning on a Hawaiian beach)
2. *"Ionisation,"* by Edgar Varese (a 20th century composition making use of drums and various percussive and concussive idiophones) Sirens are used to organize the piece and set up its form, signaling the beginning of every "episode." How many times did the sirens sound?

**Self-Test IV [ ]**

I. *Enumerate* two of the four ways by which contemporary composers have used many different sources of sounds for their compositions.
   1. _____
   2. _____

II. *Fill in* the blanks with the correct answers.

1. _____ are musical instruments that generate, amplify, or alter sounds by means of an electric current.
2. The earliest electric musical instrument was the _____, invented by a Russian scientist in 1924.
3. Edgar Varese used the _____, an unconventional sound source, to signal the episodes in his composition.

*Check* your answers using the **Answer Key**. *Record* your score in your notebook.

Perfect Score: 5 My Score: _____

## Lesson 5: "Banda Rito, Banda Ron"

Musical instruments are not always played solo. Often, they are played together in various combinations. After learning about different musical instruments and sources of sound, let us devote the last lesson in this module to a study of instrumental groups.

**Activity 1: CD2, Track 17 [ ]**

Perhaps you have heard a group of drum players in a parade during your town's fiesta. *Listen* now to an African drum ensemble. How different is the sound of this ensemble with the sounds you have heard in a parade?

Many instrumental groups are made up of the same instruments in graduated or varying sizes. The individual instruments in these ensembles are usually arranged according to pitch to produce a desired melody. A good example is the ***anklung*** ensemble found in the Philippines and Indonesia.

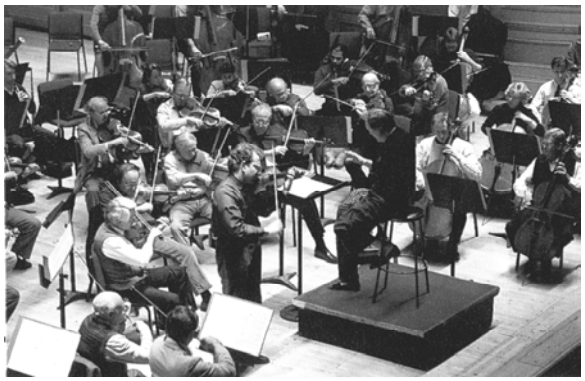
**Activity 2: CD2, Tracks 18-20 [ ]**

*Listen* to the music of the Kalinga from Northern Luzon. *Tell* whether the instruments are aerophones, chordophones, idiophones, or membranophones. *Check* your answers using the **Answer Key**.

1. *Gangsa Topayya* (flat gongs) _____
2. *Taggitag* or *patangguk* (bamboo quill-shaped tubes) _____
3. *Sageypo* or *saysay-op* (set of pipes) _____

Other instrumental groups are made up of instruments belonging to the same family or type. The Philippine ***pangkat kawayan*** consists primarily of idiophones made of bamboo. The ***rondalla*** is mostly composed of stringed instruments plucked either with the fingers or with a small plectrum. A Western string ensemble consists of bowed chordophones.

Still there are instrumental groups that consist of instruments belonging to two or more instrumental families or classifications. ***Pop/rock bands*** and ***combos*** are composed of a drum set (membranophones and idiophones) and electric guitars (electrophones). A ***marching band*** or ***symphonic band*** makes use of brass instruments (aerophones), drums (membranophones), and cymbals (idiophones).



Western symphony orchestra rehearsal

The Western ***symphony orchestra*** is a large instrumental group that developed during the 16th century. It is composed of aerophones, chordophones, membranophones, and idiophones of various types. It is divided into four main sections: String, Woodwind, Brass, and Percussion.

A ***chamber ensemble*** is a smaller instrumental group. It could be composed of one or two violins, a cello, a flute, and a piano, or any combination of instruments.

**Activity 3: CD2, Tracks 21-23 [ ]**

*Listen* to three instrumental groups. *Familiarize* yourself with the combinations of timbres in each group.

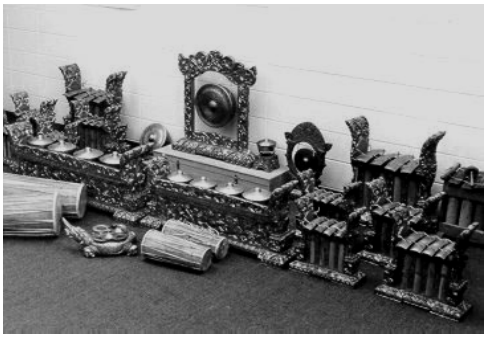
1. Rondalla – *"Sa Kabukiran"* by J. Benasa and M. Velez
2. Chamber Ensemble – *"Eine Kleine Nachtmusik"* K.525 (Allegro) by W.A. Mozart
3. Symphony Orchestra – *"Igorot Rhapsody"* (excerpt) by Angel Peña

**Activity 4: Group Them Together [ ]**

In your notebook, *re-arrange* the instruments below to show which section of the Western symphony orchestra they really belong to. You may refer to the previous lessons if you need help. *Check* your work using the **Answer Key**.

| Strings | Woodwinds | Brass | Percussion |
|---|---|---|---|
| Violin | Cello | Trombone | Clarinet |
| Bassoon | Trumpet | Harp | Xylophone |
| Timpani | Flute | Cymbals | French horn |

In the musics of Asian and other world cultures, instrumental ensembles or orchestras are quite different. For instance, the ***gamelan orchestra*** of Indonesia consists mostly of metal instruments and is divided into sections, not according to instrument type, but according to their function. This picture shows the instruments of the gamelan orchestra in Bali, Indonesia.



**Activity 5: CD2, Tracks 24-25 [ ]**

*Get to know* the timbres of instrumental groups from Asia. *Listen* to two examples.

1. *Gamelan* Orchestra (Indonesia)
2. *Piphat* Ensemble (Thailand)
3. Middle Eastern ensemble: *nay* (end-blown flute), seven frame drums, cymbals

**Activity 6: Making Music Together [ ]**

*Gather* your friends or family members who know how to play different musical instruments. It would be good if there is someone who can play a melodic instrument like the keyboard, guitar, or flute. You can also teach some of them how to play the improvised instruments you made in the previous lessons. *Create* a simple, easy-to-play instrumental composition using the instruments you have available. *Make use* of unconventional sound sources in your environment to enhance your composition. *Practice* your small ensemble and *perform* your composition before a small audience.

**Self-Test V [ ]**

I. *Fill in* the blanks with the correct answers.

1. The _____ ensemble found in the Philippines and Indonesia is an instrumental group made up of the same instruments in graduated or varying sizes.
2. The _____ is an instrumental group found in the Philippines that is primarily composed of stringed instruments plucked by the fingers or with a small plectrum.
3. A pop/rock band or _____ makes use of electronic instruments.
4. A _____ band makes use of brass instruments, drums, and cymbals.
5. The Western _____ is a large instrumental group that developed during the 16$^{th}$ century.
6. The Javanese _____ is an instrumental group in Indonesia that consists mainly of metal instruments.

II. *Enumerate* the four sections of the Western orchestra in any order.

1. _____ 2. _____ 3. _____ 4. _____

*Check* your answers using the **Answer Key**. *Record* your score in your notebook.

Perfect Score: 10 My Score: _____

## • Let's Summarize!

In this module you were introduced to various sounds of music. First you learned about the *vocal instrument*. Different body parts like the lungs, muscles, and ribs work together when you speak or sing and you need to practice helpful exercises to properly develop your singing voice. You also learned that *sopranos, altos, tenors,* and *basses* can sing together in small or big groups.

Next you learned about various musical instruments found in different cultures. There are *aerophones, chordophones, idiophones, membranophones,* and *electrophones* that can be played as solo instruments or as part of a small *ensemble* or a big *orchestra*. The timbres of instruments depend on the kind of material they are made of, their size and shape, their function, and the way they are played. Aside from these conventional instruments, music can be performed using sound-producing objects found in nature or in your surroundings.

Take the following Posttest to measure and evaluate what you have learned from this module. Hopefully, your Posttest score should be higher than your Pretest score.

## • Posttest

I. Choose the correct answer.

1. The strings of the guitar function as vibrators that _____.
   a. provide energy for vibration
   b. amplify and shape sound
   c. produce pitch
   d. dampen sound

2. The voice is produced when the _____ vibrates as air from the lungs passes through the voice box.
   a. diaphragm
   b. vocal cords
   c. tongue
   d. throat

3. If the low, heavy and often dark male voice is called a bass, then the high, light and bright male voice is called a _____.
   a. countertenor
   b. contralto
   c. baritone
   d. tenor

4. The _____ is a small group of mixed voices, often singing in soprano, alto, tenor, and bass parts.
    a. trio
    b. band
    c. ensemble
    d. choir

5. The _____ is a hybrid aerophone made of brass, with a reed in its mouthpiece.
    a. saxophone
    b. clarinet
    c. trumpet
    d. trombone

6. An example of a free reed aerophone is the _____.
    a. panpipe
    b. windpipe
    c. bagpipe
    d. reedpipe

7. Like the piano, the _____ is a chordophone that makes sounds when its strings are struck.
    a. dulcimer
    b. lyre
    c. fiddle
    d. electric keyboard

8. Violins and fiddles are usually played by _____ their strings.
    a. plucking
    b. bowing
    c. striking
    d. pressing

9. Idiophones are musical instruments that produce sound by means of a vibrating _____.
    a. skin
    b. current
    c. string
    d. body

10. Xylophones are _____ idiophones.
    a. percussive
    b. concussive
    c. abrasive
    d. sensitive

11. Different kinds of drums are examples of _____.
    a. chordophones
    b. membranophones
    c. idiophones
    d. electrophones

12. _____ are the only kind of drums in the symphony orchestra that have definite pitch.
    a. Kettle drums
    b. Goblet drums
    c. Congo drums
    d. Bongo drums

13. The _____ is an example of an electrophone.
    a. mouse pad
    b. drum pad
    c. microphone
    d. telephone

14. The Philippine rondalla and Western orchestra both have _____ instruments.
    a. electronic
    b. brass
    c. wind
    d. stringed

15. The _____ ensemble is an instrumental group made up of the same instrument in graduated sizes.
    a. rondalla
    b. symphony orchestra
    c. flat gong
    d. gamelan

II. Listen to three Japanese instruments, and then tell whether each one is an aerophone, chordophone, idiophone, or membranophone. (CD1, Tracks 7-9)

1. Shakuhachi _____ 2. Shamisen _____ 3. Taiko _____

III. Listen to *"The Prayer,"* a well-known duet, and then tell whether each voice you hear is a soprano, alto, tenor, or bass. (CD1, Track 10)

1. Male voice _____ 2. Female voice _____

*Check* your answersk using the **Answer Key**. *Record* your score in your notebook.

Perfect Score: 20 Your Score: _____

IV. *Sing* the folk song you sang during the pretest and ask your family or friend to rate you using the Rubric for Vocal Music

Perfect Score: 16 Your Score: _____

. *Record* your score in your notebook.

*CONGRATULATIONS!* YOU ARE FINISHED. YOU MAY NOW PROCEED TO MODULE 3.

# Module 2: Answer Key

Pretest:

Part I
1. a
2. b
3. d
4. c
5. d
6. b
7. a
8. b
9. c
10. a
11. b
12. d
13. b
14. c
15. d

Part II
1. chordophone
2. aerophone
3. membranophone

Part III
1. soprano
2. tenor

Lesson 1, Activity 4:
1. d (However, Jonathan Zaens is more appropriately classified as bass baritone.)
2. a
3. c
4. b (However, Denyce Graves is more appropriately classified as mezzo soprano.)

Self-Test I:
1. body
2. vocal cords
3. diaphragm
4. open
5. mouth
6. soprano
7. baritone
8. pop
9. quartet
10. soprano

Lesson 2, Activity 4:
guitar

Self-Test II:
1. air column
2. flutes
3. Answers may vary: trumpet, tuba, trombone, French horn, tenor horn
4. reeds
5. saxophone
6. free
7. plucking
8. amplify
9. gitgit (Other possible answers: biola, duwagey)
10. piano

Lesson 3, Activity 5:
1. The tambourine is a frame drum with metal jingles, thus it is a combination of a membranophone and idiophone. When the skin is beaten by the hand, it indirectly causes the jingles to bang against each other. Some modern tambourines are designed without membranes, making them idiophones.
2. The snare drum is primarily a membranophone with a wire snare that fits across the lower drumhead. Beating the drum causes the snares to produce an additional metallic sound that characterizes idiophones. You could think of it as a hybrid instrument.

Self-Test III:

1. idiophones
2. percussive
3. concussive
4. friction
5. kulintang
6. skin
7. Answers may vary: beaters, sticks, mallets, brushes
8. kettle
9. dabakan
10. tambourine

Lesson 4, Activity 1:
Electric guitars and drum set

Self-Test IV:

Part I: Any <u>two</u> of the following answers will do.

1. using nature and environmental sounds
2. unconventional ways of playing conventional instruments
3. pushing the voice to previously unimaginable or unacceptable limits
4. using pre-recorded, electronic, synthesized, and computerized sounds

Part II

1. Electrophones
2. theremin
3. siren

Lesson 5, Activity 2:

1. idiophones
2. idiophones
3. aerophones

Lesson 5, Activity 4:
Strings: violin, cello, harp
Woodwinds: bassoon, flute, clarinet
Brass: trumpet, trombone, French horn
Percussion: timpani, cymbals, xylophone

Self-Test V:

Part I

1. anklung
2. rondalla
3. combo
4. marching (or symphonic)
5. orchestra (or symphony orchestra)
6. gamelan (or gamelan orchestra)

Part II

1. Strings
2. Woodwinds
3. Brass
4. Percussion

Posttest:

Part I

1. c
2. b
3. d
4. c
5. a
6. c
7. a
8. b
9. d
10. a
11. b
12. a
13. b
14. d
15. c

Part II

1. aerophone
2. chordophone
3. membranophone

Part III

1. tenor
2. soprano

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