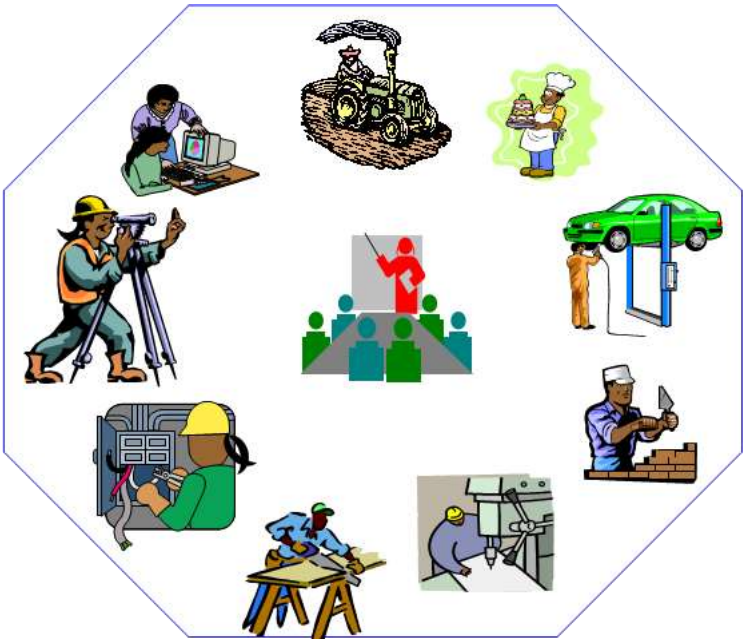
VOCAL PERFORMANCE

Level- II

Based on Sept. 2013, Version 1 OS

Version 1, April 2021 curriculum



Module Title: - Read Simple Musical Notes

LG Code: CST VOP2 M02 LO1-3-LG-4-6

TTLM Code: CST VOP1 TTLM 0421v1

April 2021

Adama, Ethiopia

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LG #4 LO #1- Become familiar with the piano

Instruction sheet

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- Understanding the piano instrument
- Understanding the range, capability,& sound characteristics of the piano
- Utilize musical symbols (clefs, dynamics, meters, rhythms)
- Rhythms accurately in 2/4, 3/4, and 4/4 meters from whole to eighth-note durations.

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- Understand the piano instrument
- Understand the range and sound characteristics of the piano
- Utilizing musical symbols
- Identify rhythms accurately in simple and compound metres

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below.
3. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
4. Accomplish the “Self-checks” which are placed following all information sheets.
5. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
6. If you earned a satisfactory evaluation proceed to “Operation sheets
7. Perform “the Learning activity performance test” which is placed following “Operation sheets” ,
8. If your performance is satisfactory proceed to the next learning guide,
9. If your performance is unsatisfactory, see your trainer for further instructions or go

back to “Operation sheets”.

Information Sheet 1- Understanding the piano instrument

1.1. History of the piano

The **piano** was invented by Bartolomeo Cristofori (1655-1731) of Italy. Cristofori was unsatisfied by the lack of control that musicians had over the volume level of the harpsichord. He is credited for switching out the plucking mechanism with a hammer to create the modern **piano** in around the year 1700.

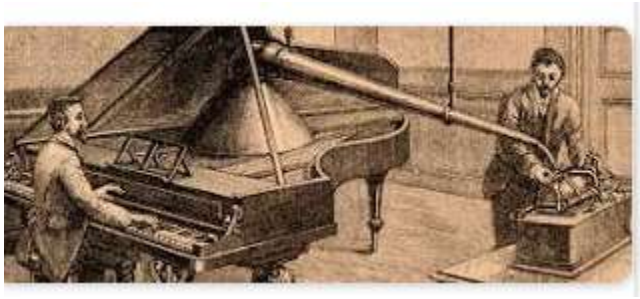


Figure1. Invention of piano

1.1.1 **The piano was created for 3 reasons**:

I. To provide a keyboard that could play both soft and loud.

II. To provide a keyboard that could sustain notes.

III. To provide a keyboard instrument that could do all of this with just one set of keys.

1.1.2 **Pianos can be broken down into three types of categories.**

- Grand pianos,
- Upright pianos, and
- Digital pianos.

Each of these pianos has their own unique features that are designed for specific pianist's needs and environments.

Types

Grand Pianos

Figure2. Grand piano

Grand piano is the largest and the most expensive type of piano. Grand piano soundboards are horizontal. This allows for much longer strings, and a greater soundboard area.

The action of a grand piano is much different than an upright piano seeing as the strings sit horizontally. The piano can play faster and with more control than an upright due to the hammers being reset by gravity as suppose to a complicated combination of springs.

The visible key size is identical across all pianos, but the grand piano key extends far deeper into the piano than an upright. This makes for a longer leaver, giving the pianist more control over dynamics and tone.

The standard width of a grand piano is also about 5′. The length varies from 4½’ to 9½’. The total floor space allowance for the smallest grand should be at least 5′ wide by 6½’ long, including bench space. Grand pianos are measure by the length from the very front of the keyboard to the farthest end of the piano along the spine, with the lid closed.

Upright or Vertical Pianos

Figure3. Upright or Vertical Piano

Upright or vertical pianos are named after the position of the piano's strings and sound board. They stand perpendicular to the ground, hence "Upright Piano".

This means that the piano hammers on an upright piano must strike horizontally to hit the vertical strings. The mechanism between pressing a key and a hammer hitting a string is not the same as a grand piano which makes playing an upright piano feel slightly different.

Upright pianos have shorter strings, and smaller soundboards than grand pianos. This was actually one of the reasons grand pianos were invented. It is much easier to build a 9 foot long piano, than it is to build a 9 foot tall piano!

Upright pianos are usually between 110cm – 135cm in height, around 155cm wide and 60cm deep, the height being the major difference between models.

Digital Pianos

Figure4. Digital piano

Digital pianos can sound very similar to uprights and grands, though how they produce their sound is very different.

When you press a key on a digital piano, instead of a hammer striking a string, a sensor is activated, and a recording of an acoustic piano is played through a set of speakers.

Digital pianos can have multiple recordings or “samples” of each note that can be played back at different volumes depending on how hard or soft you play.

Digital pianos can have many different sounds or voices of different kinds of pianos, or instruments. Digital pianos also often have recording features, and play along sequences. Some digital piano models are quite portable, and some can even run off of batteries.

A good digital piano will sound, and feel like it’s acoustic siblings. There are some hybrid digital pianos that have started using acoustic parts in their design, blurring the lines between digital and acoustic pianos.

Self-check 1	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the best answer (5 point)

1. The piano was invented by
   A. Christofor balade C. Adolf sax
   B. Bartolomeo cristofori D. Girma yifrashewa
2. A former instrument which were a reason fo the invention of the piano is
   A. saxophone C. harpsichod
   B. guitar D. keyboard
3. The largest and the most expensive type of piano Current rating
   A) Grand piano C) Upright piano
   B) Harpsichord D) Digital piano
4. The other name of an upright piano is called
   A) Vertical piano C) Side piano
   B) Horizontal piano D) Diagonal piano
5. One of the following was not the reason for the piano to be created
   A) To provide a keyboard that could play both soft and loud.
   B) To provide a keyboard that could sustain notes.
   C) To provide the player to be able to change different type of tonality
   D) To provide a keyboard instrument that could do all of this with just one set of keys.

Note: **Satisfactory rating - 10 points** **Unsatisfactory - below 10 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Information Sheet 2- Understanding the range and sound characteristics of the piano

2.1 Range of the piano

Each musical instrument has a specific range in pitch (lowest to highest note). The piano has a range of 88 keys. It is used as the basis for numbering pitches, beginning with A0 (A zero) and B0 (B zero), followed by 7 octaves from C1 (C one) to C8 (C eight). (Middle C is C4 - C four.)

2.2 Sound characteristics of the piano

The sound produced when the strings are struck and resonates throughout the entire instrument. When a key is pressed, a hammer inside the piano strikes the strings from below. However, this only produces a soft sound. One end of the strings is supported on bridges, which are attached to the sound board.

A piano usually has a protective wooden case surrounding the sound board and metal strings, which are strung under great tension on a heavy metal frame. Pressing one or more keys on the piano's keyboard causes a wooden or plastic hammer (typically padded with firm felt) to strike the strings. The hammer rebounds from the strings, and the strings continue to vibrate at their resonant frequency. These vibrations are transmitted through a bridge to a soundboard that amplifies by more efficiently coupling the acoustic energy to the air. When the key is released, a damper stops the strings' vibration, ending the sound. Notes can be sustained, even when the keys are released by the fingers and thumbs, by the use of pedals at the base of the instrument. The sustain pedal enables pianists to play musical passages that would otherwise be impossible, such as sounding a 10-note chord in the lower register and then, while this chord is being continued with the sustain pedal, shifting both hands to the treble range to play a melody and arpeggios over the top of this sustained chord. Unlike the pipe organ and harpsichord, two major keyboard instruments widely used before the piano, the piano allows gradations of volume and tone according to how forcefully or softly a performer presses or strikes the keys.

Figure5. A pianist playing on the piano

2.3 Mechanics of the piano

When the key is struck, a chain reaction occurs to produce the sound. First, the key raises the wippen mechanism, which forces the jack against the hammer roller (or knuckle). The hammer roller then lifts the lever carrying the hammer. The key also raises the damper; and immediately after the hammer strikes the wire it falls back, allowing the wire to resonate and thus produce sound. When the key is released the damper falls back onto the strings, stopping the wire from vibrating, and thus stopping the sound. The vibrating piano strings themselves are not very loud, but their vibrations are transmitted to a large soundboard that moves air and thus converts the energy to sound. The irregular shape and off-center placement of the bridge ensure that the soundboard vibrates strongly at all frequencies. The damper keeps the note sounding until the key is released (or the sustain pedal).

Self-Check – 2	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test: say true or false for the following questions.

1. Piano is an electric supported music instrument.
2. The role of the pedal is to sustain the sound produced from the piano.
3. The piano has a range of 108 keys.
4. C5 is the middle C in the pitch numbering basis on the piano.
5. A piano usually has a protective wooden case surrounding the sound board and metal strings.

Note: **Satisfactory rating - 10 points**

Unsatisfactory - below 10 points

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Information Sheet 3- Utilize musical symbols

3.1 Introduction

Musical symbols are marks and symbols in musical notation that indicate various aspects of how a piece of music is to be performed.

The staff can be thought of as a musical graph on which music notes, rests, and musical symbols are placed to indicate to the reader the specific pitch of a note. Notes are written on and between staff lines, but when they fall off of the staff, they're placed on ledger lines that lay below and above the staff.

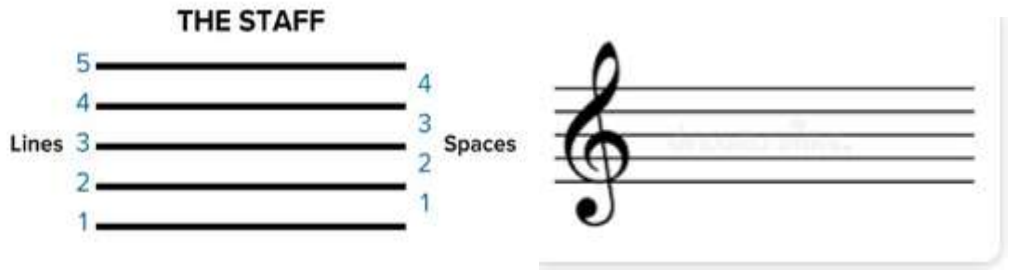


Figure6. Musical staff

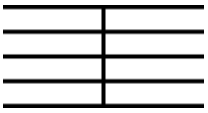
Ledger or leger lines

These additional lines (and the spaces they form) indicate pitches above or below the staff. The diagram shows a single ledger line above and below the staff but multiple ledger lines can be used.

Bar line

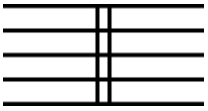
Bar lines separate measures ("bars") of music according to the indicated time signature. They sometimes extend through multiple staves to group them together when a grand

staff is used or when indicating groups of similar instruments in a conductor's score.



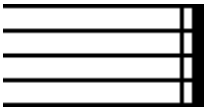
Double bar line

These indicate some change in the music, such as a new musical section, a new key signature, or a new time signature.



Bold double bar line

These indicate the conclusion of a movement or of a composition.



Dotted bar line

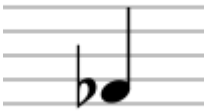
These can be used to subdivide measures of complex meter into shorter segments for ease of reading.

Bracket

A bracket is used to connect two or more lines of music that sound simultaneously. In contemporary usage it usually connects staves of individual instruments (e.g., flute and clarinet; two trumpets; etc.) or multiple vocal parts, whereas the brace connects multiple parts for a single instrument (e.g., the right-hand and left-hand staves of a piano or harp part).

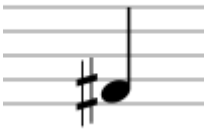
Brace

A brace is used to connect two or more lines of music that are played simultaneously, generally when using a grand staff. The grand staff is used for piano, harp, and some pitched percussion instruments.[1] The brace is occasionally called an **accolade** in some old texts and can vary in design and style.



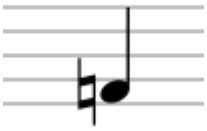
Flat

Lowers the pitch of a note by one semitone.



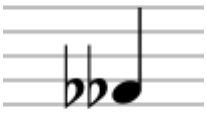
Sharp

Raises the pitch of a note by one semitone.



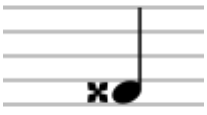
Natural

Renders null a sharp or flat. The sharp or flat may have been indicated as an accidental or defined by the key signature.



Double flat

Lowers the pitch of a note by two semitones. Usually used when the note is already flat in the key signature.[8]



Double sharp

Raises the pitch of a note by two semitones. Usually used when the note is already sharp in the key signature.

Treble Clef

There are two main clefs with which to familiarize your-self; the first is a treble clef**.** The treble clef has the ornamental letter G on the far left side. The G's inner swoop encircles the "G" line on the staff. The treble clef notates the higher registers of music**,** so if your instrument has a higher pitch, such as a flute, violin or saxophone, your sheet music is written in the treble clef. Higher notes on a keyboard also are notated on the treble clef.

Figure7. Treble clef

We use common mnemonics to remember the note names for the lines and spaces of the treble clef. For lines, we remember EGBDF by the word cue "Every Good Boy Does Fine." Similarly, for the spaces, FACE is just like the word "face."

Bass Clef

The line between the two bass clef dots is the "F" line on the bass clef staff, and it's also referred to as the F clef. The bass clef notates the lower registers of music, so if your instrument has a lower pitch, such as a bassoon, tuba or cello, your sheet music is written in the bass clef. Lower notes on your keyboard also are notated in the bass clef.

Figure8. bass clef

A common mnemonic to remember note names for the lines of the bass clef is: GBDFA "Good Boys Do Fine Always." And for the spaces: ACEG, "All Cows Eat Grass."

3.2 Notes

Notes placed on the staff tell us which note letter to play on our instrument and how long to play it.

There are three parts of each note, the note head, the stem, and the flag.

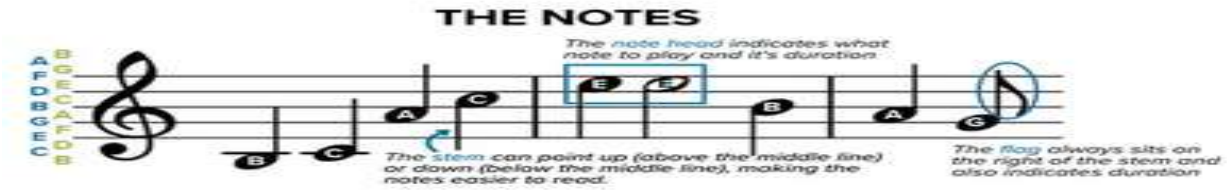


Figure9. Note stems on the staff

Every note has a note head, either filled (black) or open (white). Where the note head sits on the staff (either on a line or space) determines which note you will play. Sometimes, note heads will sit above or below the five lines and four spaces of a staff. In that case, a line (known as a ledger line) is drawn through the note, above the note or below the note head, to indicate the note letter to play, as in the B and C notes above.

The note stem is a thin line that extends either up or down from the note head. The line extends from the right if pointing upward or from the left if pointing downward. The direction of the line doesn't affect how you play the note but serves as a way to make the notes easier to read while allowing them to fit neatly on the staff. As a rule, any notes at or above the B line on the staff have downward pointing stems, those notes below the B line have upward pointing stems.

The note flag is a curvy mark to the right of the note stem. Its purpose is to tell you how long to hold a note. We'll see below how a single flag shortens the note's duration, while multiple flags can make it shorter still.

Figure10. Note values

Now that you know the parts to each note, we'll take a closer look at those filled and open note heads discussed above. Whether a note head is filled or open shows us the

note's value, or how long that note should be held. Start with a closed note head with a stem. That's our quarter note, and it gets one beat. An open note head with a stem is a half note, and it gets two beats. An open note that looks like an "o" without a stem is a whole note, and it gets held for four beats.

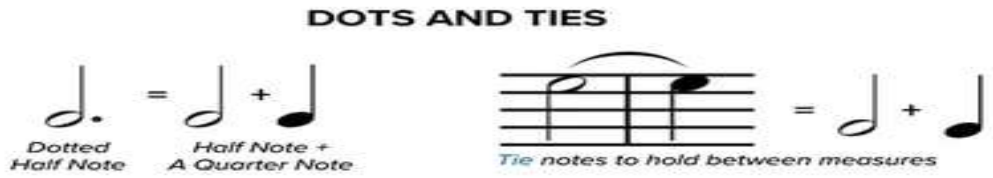


Figure11. Dots and ties

There are other ways to extend the length of a note. A dot after the note head, for example, adds another half of that note's duration to it. So, a half note with a dot would equal a half note and a quarter note; a quarter note with a dot equals a quarter plus an eighth note. A tie may also be used to extend a note. Two notes tied together should be held as long as the value of both of those notes together, and ties are commonly used to signify held notes that cross measures or bars.

Figure12. Beaming

The opposite may also happen, we can shorten the amount of time a note should be held, relative to the quarter note. Faster notes are signified with either flags**,** like the ones discussed above, or with beams between the notes. Each flag halves the value of a note, so a single flag signifies 1/2 of a quarter note, a double flag halves that to 1/4 of a quarter note, et cetera. Beams do the same while allowing us to read the music more clearly and keep the notation less cluttered. As you can see, there's no difference in how you count the eighth and 16th notes above.

But what happens when there isn't a note taking up each beat? It's easy, we take a rest!

A rest, just like a note, shows us how long it should be held based on its shape

Symbols of musical notes and their adjacent rest symbols

Figure13. Note and rest values

Self-Check – 3	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the correct answer

1. A musical graph on which music notes, rests, and musical symbols are placed is called

A) Clef
B) Bar line
C) Staff
D) Solfeggio

2. Additional lines and the spaces they form indicate pitches above or below the staff are known as

A) Bar lines
B) Ledger lines
C) Double bar lines
D) Clefs

3. The sign that raises the pitch of a note by one semitone is called

A) Flat
B) Natural
C) Sharp
D) Double sharp

4. The clef that used to notate the higher registers of musical notes on the piano is

A) Treble clef
B) Bass clef
C) Alto clef
D) Tenor clef

5. A dot after a particular note extends the value of the note by

A) Whole tone
B) Half of the note
C) Double of the note

D) Tripe of the note

Note: **Satisfactory rating - 10 points**

Unsatisfactory - below 10 points

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Information Sheet 4- Identify rhythms accurately in 2/4, 3/4, and 4/4 meters

4.1 Time signature

The time signature (also known as metre signature, or measure signature) is a notational convention used in Western musical notation to specify how many beats (pulses) are contained in each measure (bar), and which note value is equivalent to a beat.

To play music, you need to know its meter, the beat you use when dancing, clapping or tapping your foot along with a song. When reading music, the meter is presented similar to a fraction, with a top number and a bottom number, we call this the song's time signature. The top number tells you how many beats to a measure, the space of staff in between each vertical line (called a bar). The bottom number tells you the note value for a single beat, the pulse your foot taps along with while listening.

4.2 Simple vs. compound

Simple time signatures consist of two numerals, one stacked above the other:

- The lower numeral indicates the note value that represents one beat (the beat unit). This number is typically a power of 2.
- The upper numeral indicates how many such beats constitute a bar.

For instance,

2/4 means two quarter-note (crotchet) beats per bar, while

3/8 means three eighth-notes (quavers) per bar, which are beats at slower tempos (but at faster tempos

3/8 becomes compound time, with one beat per bar).

The most common simple time signatures are

2/4, 3/4 and 4/4

By convention, two special symbols are sometimes used for

- The symbol $\mathbf{C}$ is sometimes used for 4/4 time, also called common time or imperfect time. The symbol is derived from a broken circle used in music

notation from the 14th through 16th centuries, where a full circle represented what today would be written time, and was called tempus perfectum (perfect time).

- The symbol 𝄵 is also a legacy from the notational practice of late-Medieval and Renaissance music, where it signified tempus imperfectum diminutum (diminished imperfect time)—more precisely, a doubling of the speed, orproportio dupla, in duple meter. In modern notation, it is used in place of 2/2 and is called alla breve or, colloquially, cut time or cut common time.

Compound metre

In compound metre, subdivisions (which are what the upper number represents in these meters) of the beat are in three equal parts, so that a dotted note (half again longer than a regular note) becomes the beat. The upper numeral of compound time signatures is commonly 6, 9, or 12 (multiples of 3 in each beat). The lower number is most commonly an 8 (an eighth-note or quaver): as in or

Time signatures indicating two beats per bar (whether in simple or compound meter) are called duple meter, while those with three beats to the bar are triple meter. Terms such as quadruple (4), quintuple (5), and so on, are also occasionally used.

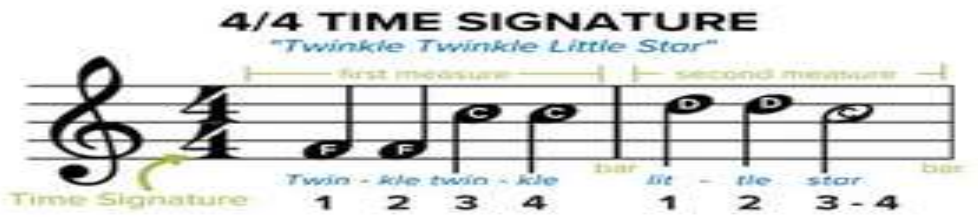


Figure14. 4/4 time signature

In the example above, the time signature is 4/4, meaning there are 4 beats per bar and that every quarter note gets one beat. Try counting along 1,2,3,4 – 1,2,3,4 with the beat numbers above.

In the example below, the time signature is 3/4, meaning there are 3 beats per bar and that every quarter note gets one beat. Try counting the beats, 1,2,3 – 1,2,3.

Figure15. 3/4 time signature

Let's look again at the above examples, notice that even though the 4/4 time signature in "Twinkle, Twinkle Little Star" calls for 4 beats per bar, there aren't 4 notes in the second bar? That's because you have two quarter notes and one half note, which added together equal 4 beats.

In addition to your note values and time signature, the last piece to feeling the rhythm is knowing your tempo or beats per minute. **Tempo** tells you how fast or slow a piece is intended to be played, and often is shown at the top of a piece of sheet music. A tempo of, say 60 BPM (beats per minute) would mean you'd play 60 of the signified notes every minute or a single note every second. Likewise, a tempo of 120 would double the speed at 2 notes every second. You may also see Italian words like "Largo," "Allegro" or "Presto" at the top of your sheet music, which signifies common tempos. Musicians use a tool, called a metronome, to help them keep tempo while practicing a new piece..

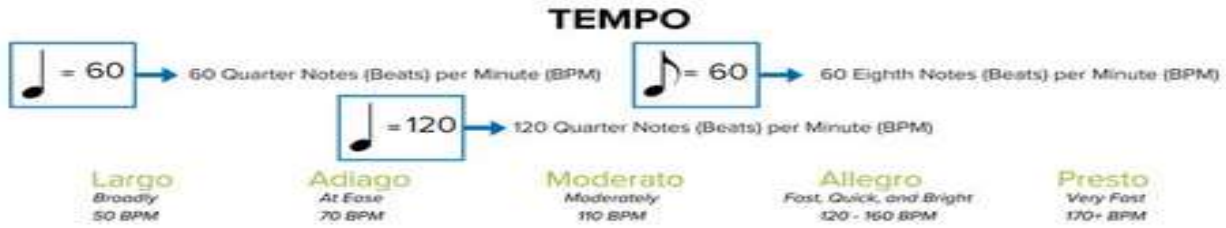


Figure16. Tempo chart

Self-Check – 4	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the correct

1. The time signature is also known
   A) Key signature C. metre signature
   B) Tempo D. Tachometer
2. The top number in time signature tells
   A) The note value for a single beat C. the speed of the tempo
   B) The number of beats in a bar D. the key of the music
3. One of the following is not most common simple time signatures
   A) 2/4 C. 4/4
   B) 3/4 D. 5/4
4. The symbol  is sometimes used to indicate the time signature
   A. 4/4 C. 2/4
   B. 3/4 D. 5/4
5. A time signatures indicating two beats per bar is called
   A) Triple metre C. quadruple metre
   B) Duple metre D) quintuple metre

Note: **Satisfactory rating - 10 points**

Answer Sheet

Unsatisfactory - below 10 points

Score = _____

Rating: _____

Name: _____ Date: _____

Operation Sheet 1- Understanding the piano instrument

1.1. Tools and equipment

- **Paper**
- **Pencil/pen**

1.2. Procedures of Understanding the piano instrument

Step 1: Differentiate the type of piano music instrument

Step 2: Tell the range of the grand piano music instrument

Step 3: Tell the sound characteristics of the piano music instrument

Operation Sheet 2- Utilizing musical symbols

1.1. Tools and equipment

- **Paper**
- **Pencil/pen**

1.2. Procedures of utilizing musical symbols

Step 1: write the musical symbol of treble clef

Step 2: write the musical symbol of bass clef

Step 3: write the musical symbol of harp

Step 4: write the musical symbol of flat

LAP TEST	Performance Test

Name……. ID……..

Date…….

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within **1** hour. The project is expected from each student to do it.

Task 1: prepare a musical staff

Task 2: draw the treble clef on the musical staff that you prepared

Task 3: draw the bass clef on the musical staff that you prepared

Task 4: put a 4/4 time signature on a treble clef staff

Task 5: put the sign of four sharps of E major scale on bass clef staff

Task 6: put the sign of five flats of the D flat major scale on the treble clef.

LG #5	LO #1- Understand the range and sound characteristics of the piano

Instruction sheet

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- Identifying piano finger position
- Fingering at a steady tempo.
- Show awareness of a variety of musical styles .

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- Identify piano finger positions
- Play at a steady tempo.
- Show awareness of a variety of musical styles

Learning Instructions:

10. Read the specific objectives of this Learning Guide.
11. Follow the instructions described below.
12. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
13. Accomplish the “Self-checks” which are placed following all information sheets.
14. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
15. If you earned a satisfactory evaluation proceed to “Operation sheets
16. Perform “the Learning activity performance test” which is placed following “Operation sheets” ,
17. If your performance is satisfactory proceed to the next learning guide,
18. If your performance is unsatisfactory, see your trainer for further instructions or go back to “Operation sheets”.

Information Sheet 1- Identifying piano finger positions

1.1 piano finger positions

1.1.1. Curled and Flat Finger Positions

The curled position has been defined in the literature as the "relaxed" natural position of the fingers when you hang the hands down your sides. This works for pianists who have been playing for years, but how a two-year-old, or a golfer, or swimmer, who 14 had never played piano, would hang the hands can be any position. To properly define the curled position, place both hands on a tabletop, about a foot apart, palm side down. Form domes with the hand and fingers as if you are holding soft balls, with finger tips touching the table. The right and left thumb nails should point towards the left and right shoulders, respectively. This is the starting position for the fingers and is called the curled position because the fingers are curled over the imaginary ball.

Figure16. Piano finger position

1.1.2. The advantages of the curled position

1. It provides firm control of each finger,
2. Facilitates playing between black keys, and aligns the fingers close to a straight line so that all keys are played at about the same distance from their pivots.

Those with long fingers find it necessary to curl fingers 2-4 more in order to play the thumb.

3. You play with the fingertips that are easy to injure and do not provide sufficient padding for better control of touch or playing FFF and PPP; two types of finger-tip injuries can occur with the curled position, Injury, Health,
4. The down stroke requires precise control of complex sets of muscles
5. It is easy to miss black keys because the finger-tip area is small, and
6. It suffers from curl paralysis. To demonstrate curl paralysis, stretch any finger (except the thumb) straight out and wiggle it up and down as if depressing a piano key.

Figure17.Two hands finger position

Then gradually curl the finger, keeping the same wiggle motion as before. Note that the maximum wiggle decreases with increasing curl: paralysis increases with curl. One unusual position is the "collapsed" position in which the last phalange (nail phalange) is bent outwards, instead of the "normal" straight or slightly curled. There is no evidence that this position is harmful, and it has the advantage of playing more with the front pad of the finger. Furthermore, the muscle to this phalange can be relaxed because tendons naturally limit the outward motion, thus simplifying finger motions and increasing relaxation.

Although some teachers abhor this position because it looks unnatural, there is no known reason why it is bad and has advantages. Trying to "correct" this position can create terrible problems. The curled position must be taught, especially to beginners, but there are many other positions that must be studied. Each pianist has his own natural position so that forcing every student to adopt a single "standard" curled position is a common mistake of older teaching methods that can significantly slow down a student's progress. When both black and white keys are played, the black keys should be played with less curl because they are higher. We shall call the family of non-curl positions the Flat Finger Positions (1) The most extreme FFP is the straight flat position: all fingers are stretched straight out. It is the way V. Horowitz played and has the advantages that: the keys are played with the front pads of the fingers which reduces the probability of injuries from long practice sessions, and the keystroke motion is the simplest of all positions, requiring use of the smallest number of muscles. This facilitates relaxation. The finger contact areas 15 with the keys are maximized, reducing the probability of missed notes, and you can feel the keys with the most sensitive front pads of the fingers. The sensitivity gives more tone control whereas, with the curled position, you are restricted to one tone which tends to be harsher. Because it is simpler, and does not suffer curl paralysis, you can play faster; however, the fastest position is one in which you play the black keys FFP and the white keys curled because this places every finger closest to its key. FFP increases the reach and reduces interference from the

fingernails. Proponents of the curled position argue that it is the strongest position because of the arch shape; this is false because athletes who do hand stands use the front pads, not the fingertips; thus the FFP is the stronger position.

Basic Practice Methods for finger position

Practice Routines, the Intuitive Method Many students use the following practice routine:

1. Practice scales or technical exercises until the fingers are limbered up. Continue this for 30 minutes or longer if you have time, to improve technique especially by using exercises such as the Hanon series. This is when you can really work hard to strengthen the fingers.
2. 2. Then take a new piece of music and slowly read it for a page or two, carefully playing both hands together, starting from the beginning. This slow play is repeated until it can be performed reasonably well and then it is gradually speeded up until the final speed is attained. A metronome might be used for this gradual ramp-up.
3. At the end of a two hour practice, the fingers are flying, so the students can play as fast as they want and enjoy the experience before quitting. After all, they are tired of practicing so that they can relax, play their hearts out at full speed; this is the time to enjoy the music!
4. Once the new piece can be played satisfactorily, memorize it and keep practicing "until the music is in the hands"; this is how you make sure that it is memorized.
5. On the day of the recital or lesson, practice the piece at correct speed (or faster!) as many times as possible in order to make sure it is in top condition. This is the last chance; obviously, the more practice, the better. Every step of this procedure creates problems, is based on false beliefs and will limit progress to about the intermediate level even if the students practice several hours daily. This method tells the students nothing about what to do when they hit an impossible passage except to keep repeating, sometimes for a lifetime, with no idea of when or how the necessary technique will be acquired. A teacher who can't even play the piano can teach this method! It leaves the task of acquiring technique to the student — the method teaches nothing. Moreover, the music will come out flat

during the recital and unexpected flubs will be almost unavoidable, as explained in this book. All these problems are solved using "efficient practice methods"

Figure18. Figure position chart

Most Versatile Finger, Power Thumb

The thumb is the most versatile finger; it lets us play scales, arpeggios, and wide chords. It has four major ways to move down (play a note):

1. Finger motion: with the hand motionless, play the thumb with only finger motion, by pivoting each finger at the knuckle (the "thumb knuckle" is at the wrist),
2. Wrist motion: with the forearm motionless and rigid fingers, play the thumb with wrist motion only
3. Arm motion: with the fingers and wrist rigid, play the thumb by swinging the entire forearm down. This motion originates at the shoulder, and by
4. Forearm rotation (Forearm Rotation). Practice each of these motions separately, eliminating all stress. First, practice each slowly, with large, exaggerated motion. Then increase speed by decreasing the motion. This exercise will reveal which is your fastest motion. Speed can be further increased by combining the motions because, when combined, smaller individual motions will be needed to accomplish the same key drop.

Thumb motion

Separating each motion is difficult at first, because we usually combine most of them for any thumb motion, which is why it is important to practice each motion separately. Play with the tip of the thumb, not the joint (of the nail phalange); this will enable the thumb to slide and the wrist to be raised, thus reducing the chances of the other fingers accidentally hitting unintended notes. Playing with the tip makes the thumb as long as possible, which is needed because it is the shortest finger. This also increases the range and speed of the thumb movement; that is, for the same thumb movement, the tip moves farther and faster than the joint. There are two thumb positions: weak and power. Place both hands on the keys, straight in front, the thumb nails facing each other; this is the weak position. The thumbnails are almost vertical to the keyboard, and the tips of the thumbs are bent slightly towards the fingers so that they are almost parallel to the fingers. This position is useful for slow or easy passages. For technically difficult material, especially when power is needed, use the power thumb position: with both hands on the keyboard, extend the thumbs straight out, so that the thumbnails now face upwards towards your face (LH thumb on G3, RH thumb on G4). This position enables rapid play, makes optimum use of forearm rotation, allows complete relaxation, and utilizes the strongest muscles in the thumb: those powerful muscles that are used to push thumb tacks into a wall. Applying force in the weak position can cause pain and injury, not only to thumb muscles, but also elsewhere. The power thumb position is attained by raising the wrist so that you play closer to the palm-side tip of the thumb. This automatically causes the thumb to point down and engages the strong muscles of the thumb. The weak thumb position is attained by lowering the wrist so that the hand is level with the forearm: you are now playing more 79 with the side of the thumb. In general, try the weak thumb position first, and if this is inadequate, gradually add the strong position. Thus the use of weak/strong thumb is analogous to TU/TO; they are not generally used in their extreme positions, but somewhere in between. Most of us think of the thumb as the strongest finger; however, even the pinky can overpower the thumb in its weak position, especially at high speeds. The strengths of the thumb and pinky can be balanced by a proper choice of the weak/ power thumb positions, in applications such as the octave tremolo.

Self-Check – 1	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the correct

Note: **Satisfactory rating - 10 points**

Unsatisfactory - below 10 points

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Information Sheet 2- Playing at a steady tempo.

2.1 Tempo in music

Tempo means the speed at which a piece of music should be played. As with many other musical terms, Italian words are used to describe different tempos of music

Typically, tempo is measured according to beats per minute (bpm) and is divided into 8 categories. These are:

1. Prestissimo (>200 bpm)
2. Presto (168–200 bpm)
3. Allegro (120–168 bpm)
4. Moderato (108–120 bpm)
5. Andante (76–108 bpm)
6. Aadagio (66–76 bpm)
7. Larghetto (60–66 bpm)
8. Largo (40–60 bpm)

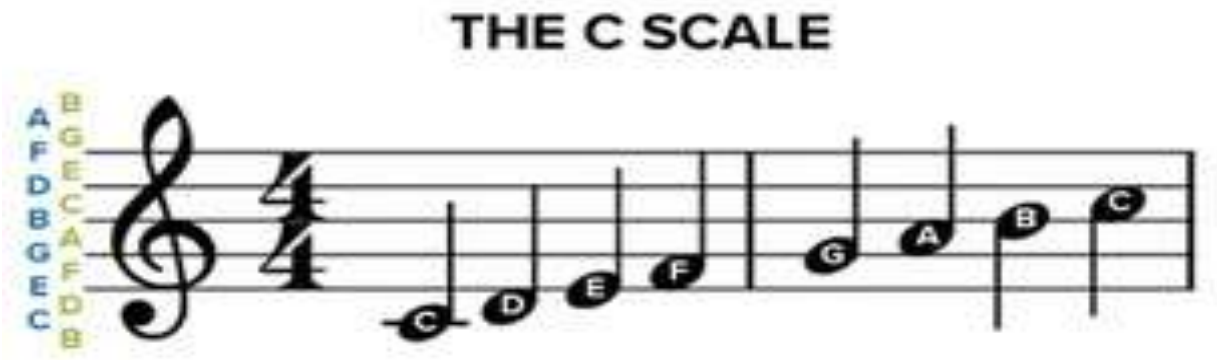
The Tempo of a piece of music is the speed at which it is played, measured in beats. You can learn to play by ear, sing in tune, and become more musically confident. The ability to launch a piece of music to the correct tempo and maintain it.

As to how to choose the initial tempo, pick the one that sounds best, not too rushed and too slow. For example, if you want to base the entire song's tempo around a guitar solo, play the guitar solo with the metronome on at various BPMs. Once you find the tempo you like, keep it.

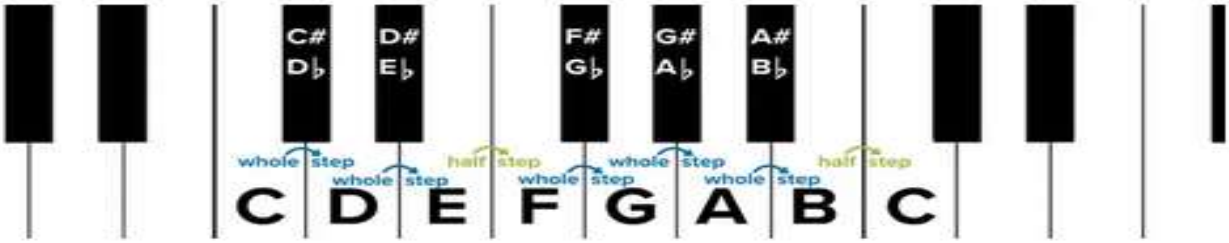
Play a Melody

Congratulations, you're almost on your way to reading and playing music! First, let's look at scales. A scale is made of eight consecutive notes, for example, the C major scale is composed of C, D, E, F, G, A, B, C. The interval between the first note of your C major scale and the last is an example of an octave. The C major scale is very

important to practice since once you have the C scale down, the other major scales will start to fall into place. Each of the notes of a C major scale corresponds with a white key on your keyboard. Here's how a C major scale looks on a staff and how that corresponds to the keys on your keyboard:



You'll notice that as the notes ascend the staff, and move to the right on your keyboard, the pitch of the notes gets higher. But, what about the black keys? Musically, whole tones**,** or whole steps between the note letters, would limit the sounds we're able to produce on our instruments. Let's consider the C major scale you just learned to play. The distance between the C and the D keys in your C scale is a whole step, however, the distance between the E and the F keys in your C scale is a half-step. Do you see the difference? The E and the F keys don't have a black key in between them, thus they're just a half step away from one another. Every major scale you'll play on a keyboard has the same pattern, whole-whole-half-whole-whole-whole-half. There are many other types of scales, each with unique sounds, like minor scales, modal scales and more that you'll come across later on, but for now, let's focus just on major scales and the major scale pattern. Look at the C major scale again on the keyboard below.

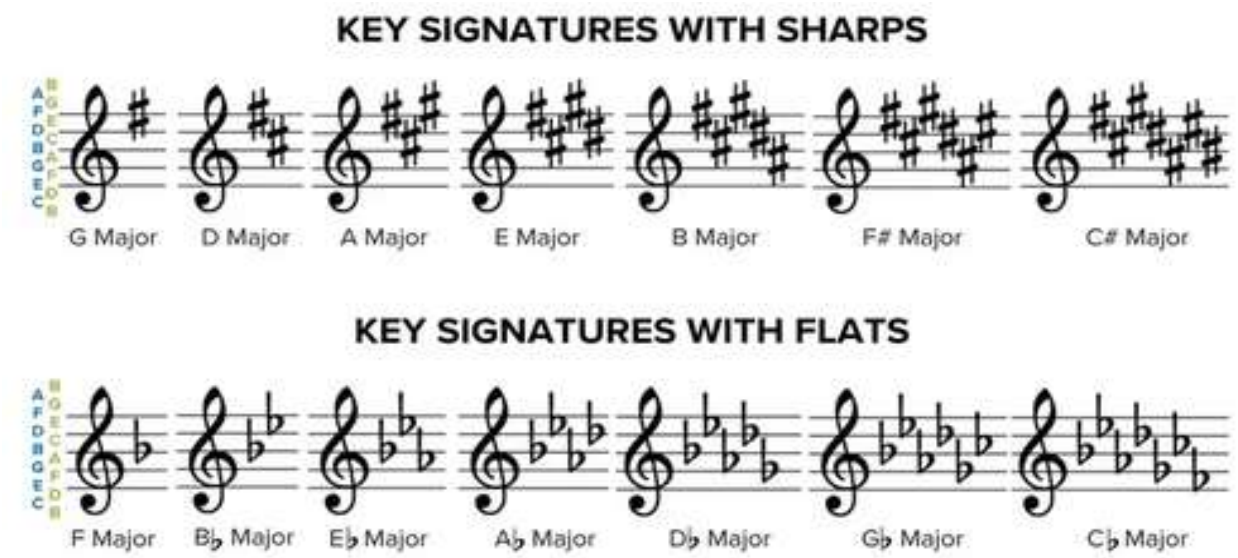


Semitones, or half-steps on the keyboard, allow us to write an infinite variety of sounds into music. A sharp, denoted by the ♯ symbol, means that note is a semitone (or half step) higher than the note head to its right on sheet music. Conversely, a flat, denoted by a ♭ symbol, means the note is a semitone lower than the note head to its right. You'll notice on the keyboard picture and notated staff below, showing each half step between the C and the E notes, that whether you use the sharp or the flat of a note depends on whether you're moving up or down the keyboard.

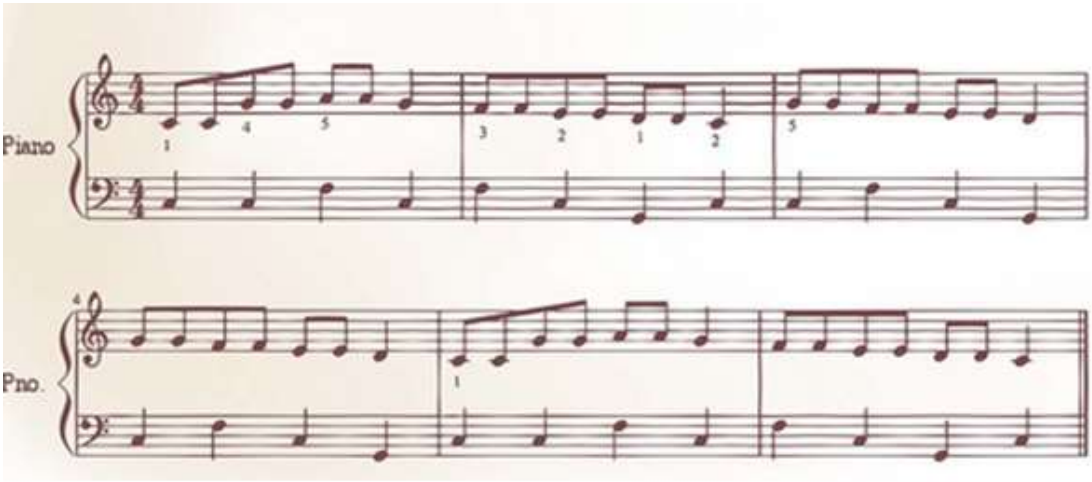
There's one more symbol to learn regarding semitones, and that's the natural, denoted by a ♮. If a note is sharp or flat, that sharp or flat extends throughout the measure, unless there's a natural symbol. A natural cancels a sharp or flat within a measure or a song. Here's what playing C to E would look like with natural symbols.

Finally, in order to read music, you'll need to understand key signatures. You actually already know one key signature, the key of C! The C major scale you learned above was in the key of C. Scales are named after their tonic, the preeminent note within the scale, and the tonic determines what key you play in. You can start a major scale on any note, so long as you follow the whole-whole-half-whole-whole-whole-half pattern. Now, following that pattern in keys other than the key of C will require you to use sharps and flats. Since that's the case, we place the sharps or flats for your song's key signature right before the meter, after the clef, on your sheet music. That tells you to maintain those sharps or flats throughout the music unless of course there's a natural symbol to override it. You will begin to recognize the key signatures of pieces based on

what sharps or flats are shown. Here's a quick glimpse at some key signatures using sharps and flats:



Perform the following music notations with steady tempo.



Information Sheet 3- Show awareness of a variety of musical styles

3.1 A music style/genre

A music style is a conventional category that identifies some pieces of music as belonging to a shared tradition or set of conventions. It is to be distinguished from musical form and musical style, although in practice these terms are sometimes used interchangeably.

Music can be divided into genres in varying ways, such as into popular music and art music, or religious music and secular music. The artistic nature of music means that these classifications are often subjective and controversial, and some genres may overlap.

A music genre or subgenre may be defined by the musical techniques, the cultural context, and the content and spirit of the themes. Geographical origin is sometimes used to identify a music genre, though a single geographical category will often include a wide variety of subgenres. Timothy Laurie argues that, since the early 1980s, "genre has graduated from being a subset of popular music studies to being an almost ubiquitous framework for constituting and evaluating musical research objects".[6]

The term genre is generally defined in a similar way by many authors and musicologists, while the related term style has different interpretations and definitions. Some treat the terms genre and style as the same, saying that genre should be defined as pieces of music that share a certain style or "basic musical language." Others, such as state that genre and style are two separate terms, and that secondary characteristics such as subject matter can also differentiate between genres.

Style refers to more to the conventions of rhythm, harmony, melody, arrangement and production that might be associated with music of a particular type, from a particular area, or of a particular genre. Because of this you can hear people say things like, "I consider myself a contemporary electronic/dance artist, but I draw a lot of my inspiration from the funk style of the 80's."

Genre has a slightly more taxonomical meaning, in that it usually relates to an attempt to group music into somewhat arbitrary structurally related genres and sub genres. I say arbitrary because music is not science and any system of classifying must be at least partially subjective. For instance, at the highest level you might distinguish between instrumental and vocal music. Between broad groups such as pop, rock, metal, world, concert/classical, jazz/blues, funk/motown. Each of these has quite a few sub genres. And there is a great deal of "overlap" and borrowing going on. There are heavy metal guitar players who play classical violin etudes, for example. But in the event of genre-crossing, the genre classification tends to be made on the basis of the audience it's aimed at. Although some metal fans may be open to hearing classical music on electric guitar, this kind of performance of classical repertoire is not often heard in the concert hall and so you might say that the average listener of classical music is somewhat uninterested in hearing this type of interpretation of classical music

Major Types of Music from Around the World

- Country.
- Electronic dance music (EDM)
- Hip-hop.
- Indie rock.
- Jazz.
- K-pop.
- Metal.
- Oldies.

Major type of music genres

1. Art music

Art music primarily includes classical traditions, including both contemporary and historical classical music forms. Art music exists in many parts of the world. It emphasizes formal styles that invite technical and detailed deconstruction and criticism, and demand focused attention from the listener. In Western practice, art music is

considered primarily a written musical tradition, preserved in some form of music notation rather than being transmitted orally, by rote, or in recordings, as popular and traditional music usually are. Historically, most western art music has been written down using the standard forms of music notation that evolved in Europe, beginning well before the Renaissance and reaching its maturity in the Romantic period.

The identity of a "work" or "piece" of art music is usually defined by the notated version rather than by a particular performance and is primarily associated with the composer rather than the performer (though composers may leave performers with some opportunity for interpretation or improvisation). This is so particularly in the case of western classical music. Art music may include certain forms of jazz, though some feel that jazz is primarily a form of popular music. The 1960s saw a wave of avant-garde experimentation in free jazz, represented by artists such as Ornette Coleman, Sun Ra, Albert Ayler, Archie Shepp and Don Cherry. Additionally, avant-garde rock artists such as Frank Zappa, Captain Beefheart, Midnight Brewers, and The Residents released art music albums.

Popular music

Popular music is any musical style accessible to the general public and disseminated by the mass media. Musicologist and popular music specialist Philip Tagg defined the notion in the light of sociocultural and economical aspects:

Figure20. Popular musician Jennifer Lopez performing at a pop music festival

Popular music, unlike art music is

1. Conceived for mass distribution to large and often socio culturally heterogeneous groups of listeners.
2. Stored and distributed in non-written form
3. Only possible in an industrial monetary economy where it becomes a commodity and in capitalist societies, subject to the laws of 'free' enterprise should ideally sell as much as possible.
4. Popular music is found on most commercial and public service radio stations, in most commercial music retailers and department stores, and movie and television soundtracks. It is noted on the Billboard charts and, in addition to singer-songwriters and composers, it involves music producers more than other genres do.
5. The distinction between classical and popular music has sometimes been blurred in marginal areas such as minimalist music and light classics. Background music for films/movies often draws on both traditions. In this respect, music is like fiction, which likewise draws a distinction between literary fiction and popular fiction that is not always precise.

Rock music

Rock music is a broad genre of popular music that originated as "rock and roll" in the United States in the late 1940s and early 1950s, developing into a range of different styles in the mid-1960s and later, particularly in the United States and the United Kingdom.

Electronic music

Electronic music is music that employs electronic musical instruments, digital instruments, or circuitry-based music technology in its creation. Contemporary electronic music includes many varieties and ranges from experimental art music to popular forms such as electronic dance music.

Soul music

Soul music became a musical genre that came to include a wide variety of R&B-based music styles from the pop R&B acts at Motown Records in Detroit, such as The

Temptations, Marvin Gaye and Four Tops, to "deep soul" singers such as Percy Sledge and James Carr.

Funk music

Funk is a music genre that originated in African American communities in the mid-1960s when musicians created a rhythmic, danceable new form of music through a mixture of soul, jazz, and rhythm and blues (R&B).

Country music

Country music, also known as country and western (or simply country) and hillbilly music, is a genre of popular music that originated in the southern United States in the early 1920s.

Reggae music

Reggae music, originating from the late 1960s Jamaica, is a genre of music that was originally used by Jamaicans to define themselves with their lifestyle and social aspects.[26]The meaning behind reggae songs tend to be about love, faith or a higher power, and freedom.[27] Reggae music is important to Jamaican culture as it has been used as inspiration for many third world liberation movements. Bob Marley, an artist primarily known for reggae music, was honored by Zimbabwe's 1980 Independence celebration due to his music giving inspirations to freedom fighters. The music genre of reggae is known to incorporate stylistic techniques from rhythm and blues, jazz, African, Caribbean, and other genres as well but what makes reggae unique are the vocals and lyrics. The vocals tend to be sung in Jamaican Patois, Jamaican English, and Iyaric dialects. The lyrics of reggae music usually tend to raise political awareness and on cultural perspectives.

Hip hop music

Hip Hop music, also referred to as hip hop or rap music, is a genre of music that was started in the United States, specifically the South Bronx in the New York City by African-American youth from the inner cities during the 1970s. It can be broadly defined as a stylized rhythmic music that commonly accompanies rapping,[29] a rhythmic and

rhyming speech that is chanted.[30] Hip hop music derives from the hip hop culture itself, including four key elements: emceeing (MCing)/rapping, Disc jockeying (DJing) with turntablism, breakdancing andgraffiti art.

Figure Two DJs practicing turntablism

Punk music

The aggressiveness of the musical and performative style, based on structural simplicity and the vigorous rhythms of rock'n'roll style, reinforced the challenging and provocative character, within the universe of modern music.

Self-Check – 3	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the correct

Note: **Satisfactory rating - 10 points**

Unsatisfactory - below 10 points

Score = _____

Rating: _____

Answer Sheet

Name: _____ Date: _____

Operation Sheet 1- Techniques of Reading music notation

Operation Sheet 2- Techniques of Identifying music notation

LAP TEST	Performance Test

Name……. ID……..

Date…….

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within **1** hour. The project is expected from each student to do it.

Task 1: Install cables and wires

Task 2: Test cables and wires

Task 3: Check ground resistance

Task 4: Check oxygen purity using analyzer

LG #6	LO #3- Utilizing musical symbols

Instruction sheet

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- Using of musical signs and symbols
- Playing melodic and harmonic intervals form unisons to octaves
- Developing sight-reading skills.
- Applying interval analysis and aural recognition

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- Use of musical signs and symbols
- Play melodic and harmonic intervals form unisons to octaves
- Develop sight-reading skills.
- Apply interval analysis and aural recognition

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
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6. If you earned a satisfactory evaluation proceed to “Operation sheets
7. Perform “the Learning activity performance test” which is placed following “Operation sheets” ,
8. If your performance is satisfactory proceed to the next learning guide,

9. If your performance is unsatisfactory, see your trainer for further instructions or go back to “Operation sheets”.

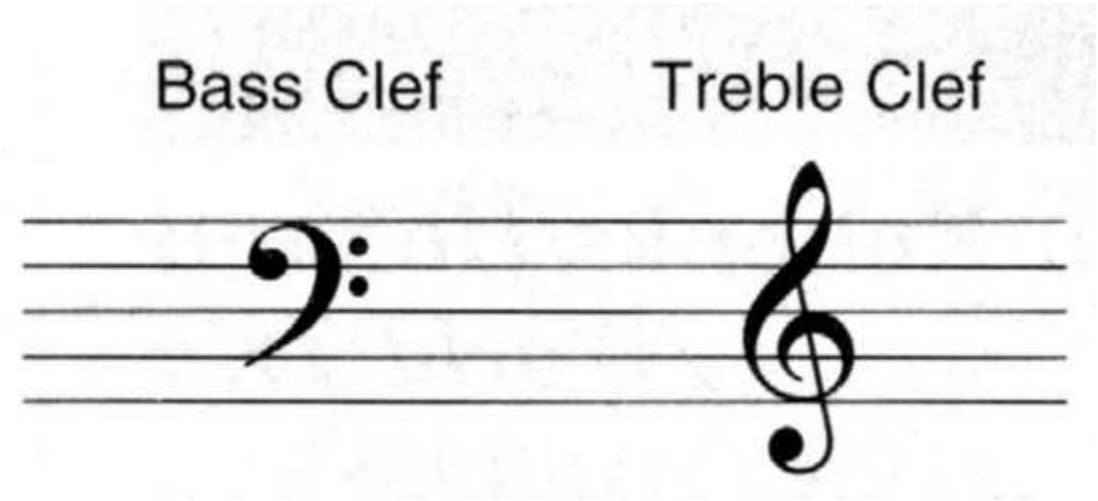
Information Sheet 1- Using musical signs and symbols

1.1 Starting with the Basics

1.1.1 Write the clef on the staff.

A page of sheet music is made up of notes and rests printed on five parallel lines and the spaces in between them, which is called the staff. The lines and spaces are counted from the bottom to the top, meaning the higher-pitched notes will be higher up on the staff. The staff can be in either bass or treble clef, which will be marked at the left-most point on each line of the staff. The clef marker will tell you which line corresponds to which set of notes:

- **In the treble clef**, also known as "G clef," you'll notice a sign a bit like the ampersand (&), printed on the left side of each staff. This is the most common clef for sheet music. Guitar, trumpet, saxophone and most higher-register instruments will be printed on treble clef. The notes, starting on the bottom line and going to the top line, are E, G, B, D, and F. The notes in the spaces between the lines, starting with the space between the first and second, are F, A, C, and E.
- **In the bass clef** you'll notice a sign that looks a bit like a curved number "7" to the left of each line of the staff. The bass clef is used for instruments in the lower register, like trombone, bass guitar, and tuba. Starting with the bottom, or first line, the notes ascend G, B, D, F, and A. In the spaces are A, C, E, and G, from the bottom to the top.
- **The tenor clef** is used for choral works. It looks like the treble clef but with a little number 8 under it. It reads just like the treble clef but sounds an octave lower.



1.1.2 Write the time signature.

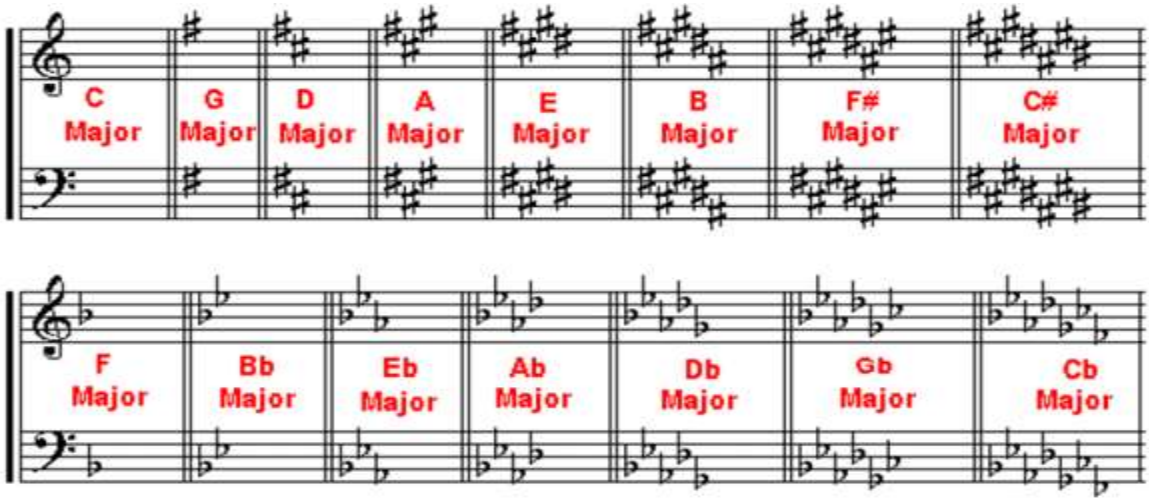
The time signatures reforest to the number of notes and beats in each measure on the staff. On the staff, measures will be separated by periodic vertical lines, separating the staff into little chunks of notes. Just to the right of the clef will be two numbers, one over the other, like a fraction. The top number represents the number of beats in each measure on the staff, while the bottom number represents the value of each beat in the measure.

In western music, the most common time signature is 4/4 time, which means there are four beats in each measure, and one quarter-note is worth one beat. You may also see a capital C in place of 4/4. They are the same thing, the "C" is for "common time." 6/8 time, another often used time signature, means that there are 6 beats in each measure and the 8th note gets the beat.

3- Placing the key signature.

More information to be included at the left of each line of the staff includes any sharps (#) or flats (b) that will designate the key signature you'll follow throughout the music. A sharp takes a note up half a step, while a flat lowers it half a step. The symbols can appear incidentally throughout the piece for occasional uses, or can appear at the beginning of the piece to follow through the remainder of the song.

- If, for instance, you see a sharp in the first space in the treble clef, you'll know that each note that appears in that space will need to be played one half-step higher. Likewise, with flats.

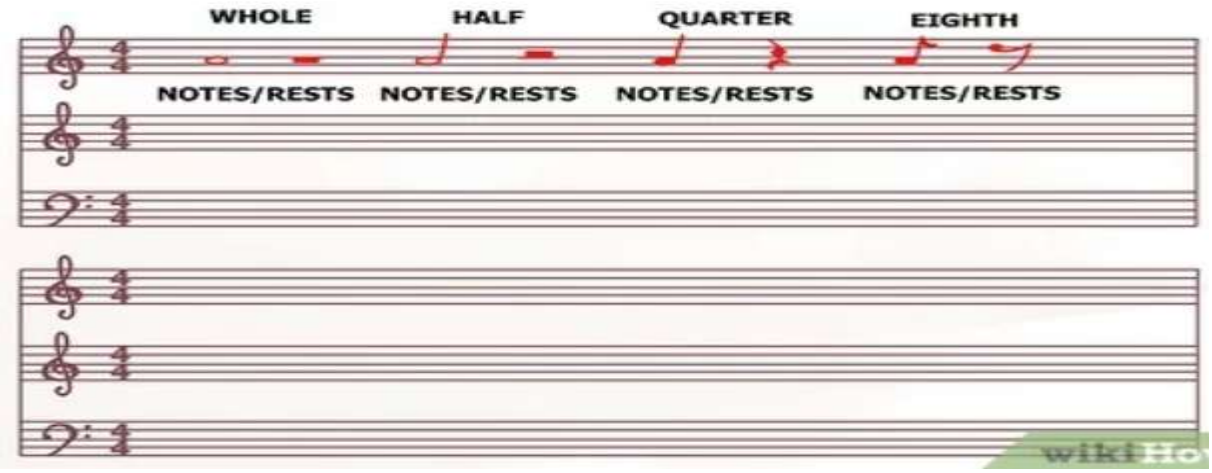


1.1.3 Learn the different kinds of notes you'll use.

On the staff will be printed many different types of notes and rests. The style of note refers to the length of the note, and the placement of the note on the staff refers to the pitch of the note. Notes are made of heads, which are either dots or circles, and stems, which trail off from the head of the note, either up or down on the staff, depending on the placement of the note.

- **Whole notes** look like ovals, and are held out for 4 quarter notes.
- **Half notes** look like whole notes, but with a straight stem. They're held for half the length of a whole note. In 4/4 time, there would be 2 half-notes per measure.
- **Quarter notes** have solid black heads and straight stems. In 4/4 time, there are 4 quarter notes in a measure.
- **Eighth notes** look like quarter notes with little flags on the end of the stem. In most cases, eighth notes will be grouped together for each beat, with bars connecting the notes to signify the beat and make the music easier to read.
- **Rests** follow similar rules. Each whole rest looks like a black bar on the middle line of the staff, while quarter-note rests look a bit like a letter "K" in italics, building stems and flags as they break down into further divisions per beat.

- **A dotted note or rest** means that you add half of the value of the note. For example, a dotted half note would be 3 beats and a dotted quarter would be 1 1/2.



1.1.4 Spend time learning from other scores.

Western musical notation is a fairly complex symbolic language that you need to understand to read first if you hope to write it. Just as you couldn't hope to write a novel without understanding to read words and sentences, you can't write sheet music if you can't read notes and rests. Before you try to write down sheet music, develop a working knowledge of:

- different notes and rests
- the lines and spaces on the sheet
- rhythm markers
- dynamic markers

2. key signatures

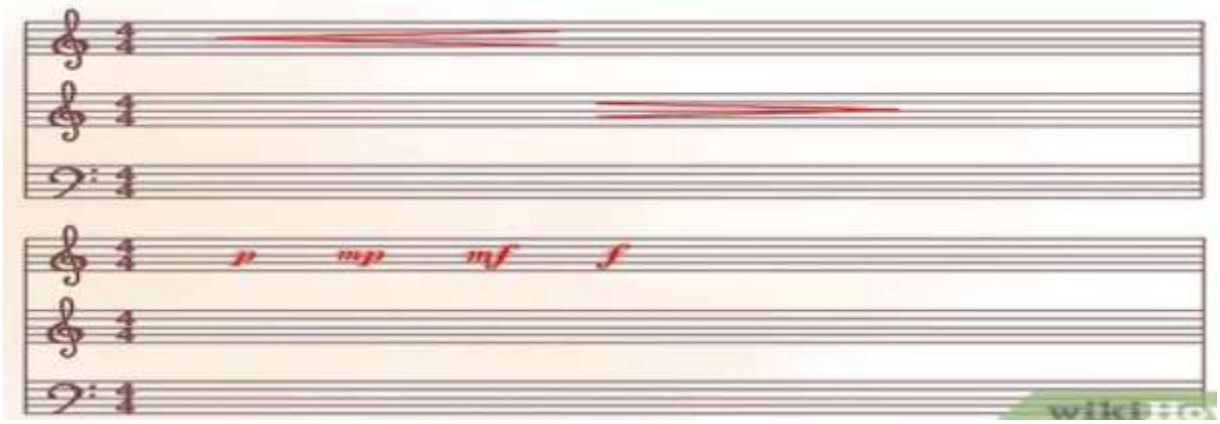
1.1.6 Punctuate the music with dynamic contrasts.

Good compositions should swell and subside, should punctuate moments of extreme emotion and melodic peaks with louder dynamics.

- You can signify dynamic changes in the sheet music with Italian words that signify basic descriptions of loud and soft. "Piano" means that you should play softly, and is usually written below the staff when the music should be played

quietly. "Forte" means loud, and is written in the same way. Note the original name of the Piano, the Piano forté; this may help you in remembering that one of the exceptional features of the instrument is it's ability to be a percussion instrument (That also utilizes strings) that can both increase and diminish in sound. If you're not intending a great amount of dynamic contrast in your piece, or don't want to worry about this yet, or you prefer to focus on tonality and rhythm while learning to write, you may consider it's older relatives, the pipe organ and the harpsichord, which have different strengths and will help your fluency on piano.

- Gradations can be suggested by drawing an elongated "<" or ">" sign under the staff, where the music should either crescendo (get louder) or diminish your sound, depending.



Self-Check – 3	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the correct Answer Questions

Note: **Satisfactory rating - 10 points** **Unsatisfactory - below 10 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

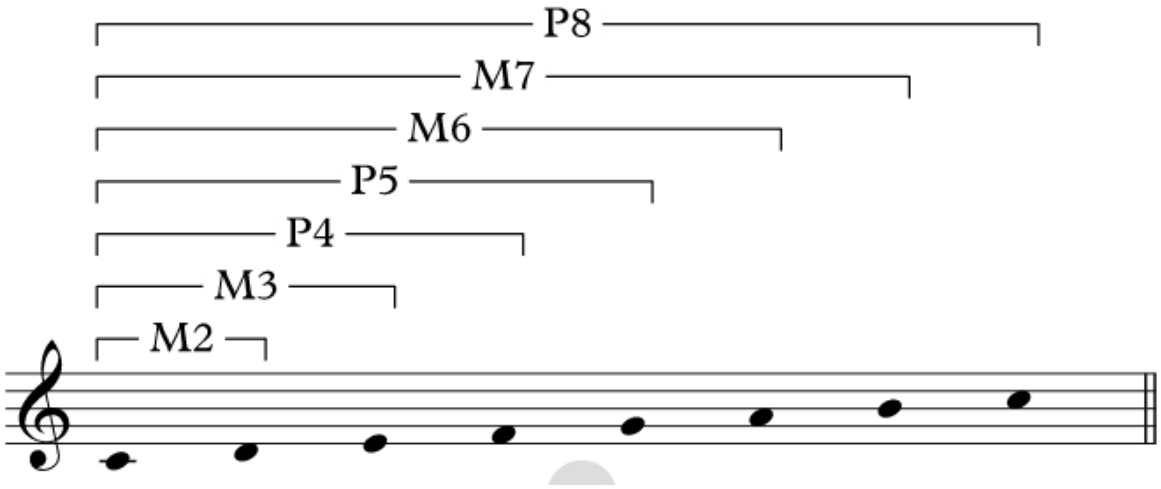
Rating: _____

Name: _____ Date: _____

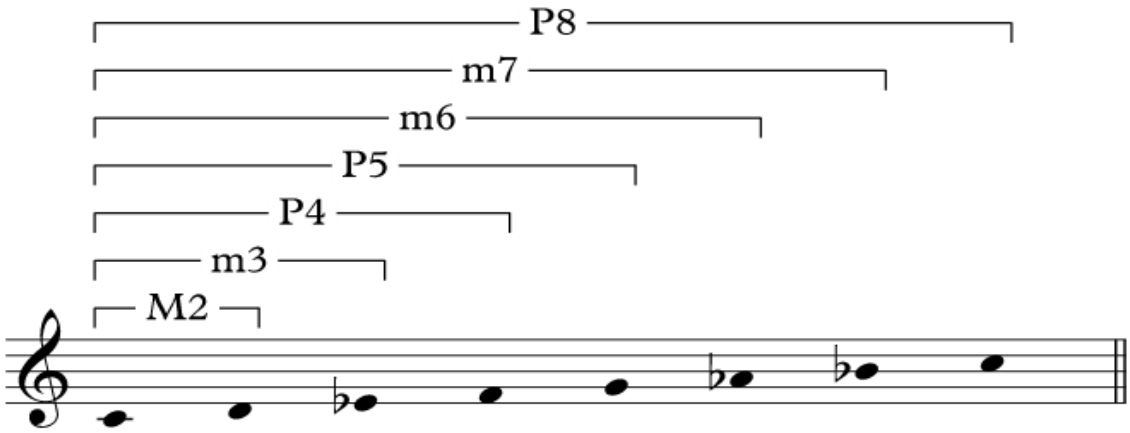
Information Sheet 2- Playing melodic and harmonic intervals form unisons to octaves

2.1 Interval

In music theory, an interval is a difference in pitch between two sounds.[1]An interval may be described as horizontal, linear, or melodic if it refers to successively sounding tones, such as two adjacent pitches in a melody, and vertical or harmonic if it pertains to simultaneously sounding tones, such as in a chord.

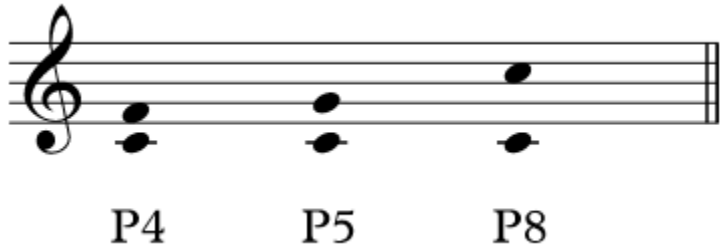


In Western music, intervals are most commonly differences between notes of a diatonic scale. The smallest of these intervals is a semitone. Intervals smaller than a semitone are called microtones. They can be formed using the notes of various kinds of non-diatonic scales. Some of the very smallest ones are called commas, and describe small discrepancies, observed in some tuning systems, between enharmonically equivalent notes such as C♯ and D♭. Intervals can be arbitrarily small, and even imperceptible to the human ear.



The table shows the most widely used conventional names for the intervals between the notes of a chromatic scale. A perfect unison (also known as perfect prime) is an interval formed by two identical notes. Its size is zero cents. A semitone is any interval between two adjacent notes in a chromatic scale, a whole tone is an interval spanning two semitones (for example, a major second), and a triton is an interval spanning three tones, or six semitones (for example, an augmented fourth). Rarely, the term ditone is also used to indicate an interval spanning two whole tones (for example, a major third), or more strictly as a synonym of major third.

Intervals with different names may span the same number of semitones, and may even have the same width. For instance, the interval from D to F♯ is a major third, while that from D to G♭ is a diminished fourth. However, they both span 4 semitones. If the instrument is tuned so that the 12 notes of the chromatic scale are equally spaced (as in equal temperament), these intervals also have the same width. Namely, all semitones have a width of 100 cents, and all intervals spanning 4 semitones are 400 cents wide.



The names listed here cannot be determined by counting semitones alone. The rules to determine them are explained below. Other names, determined with different naming conventions, are listed in a separate section. Intervals smaller than one semitone (commas or microtones) and larger than one octave (compound intervals) are introduced below.

Number of semitones	Minor, major, or perfect intervals	Short	Augmented or diminished intervals	Short	Widely used alternative names	Short
0	Perfect unison[5][b]	P1	Diminished second	d2		
1	Minor second	m2	Augmented unison[5][b]	A1	Semitone,[c] half tone, half step	S
2	Major second	M2	Diminished third	d3	Tone, whole tone, whole step	T
3	Minor third	m3	Augmented second	A2	Trisemitone	
4	Major third	M3	Diminished fourth	d4		
5	Perfect fourth	P4	Augmented third	A3		
6			Diminished fifth	d5	Tritone[a]	TT
			Augmented fourth	A4		
7	Perfect fifth	P5	Diminished sixth	d6		
8	Minor sixth	m6	Augmented fifth	A5		
9	Major sixth	M6	Diminished seventh	d7		
10	Minor seventh	m7	Augmented sixth	A6		
11	Major seventh	M7	Diminished octave	d8		
12	Perfect octave	P8	Augmented seventh	A7		

Melodic and harmonic

Intervals can be described, classified, or compared with each other according to various criteria.

An interval can be described as

- Vertical or harmonic if the two notes sound simultaneously
- Horizontal, linear, or melodic if they sound successively

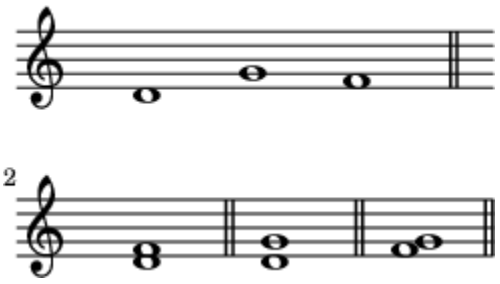
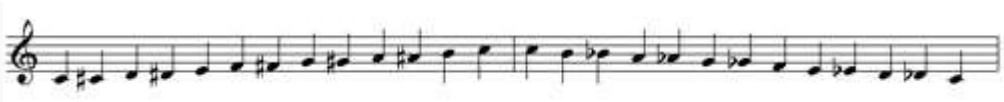


Figure Melodic and harmonic interval

Diatonic and chromatic

In general,

- A diatonic interval is an interval formed by two notes of a diatonic scale.
- A chromatic interval is a non-diatonic interval formed by two notes of a chromatic scale.

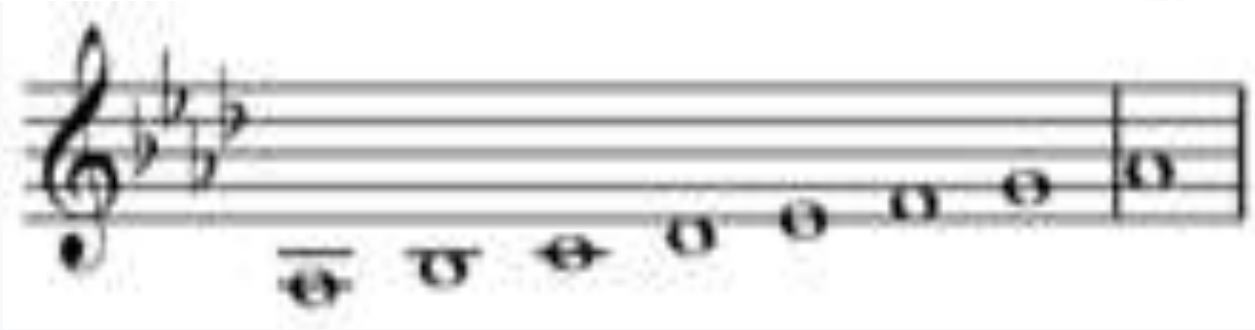


Ascending and descending chromatic scale on C

The table above depicts the 56 diatonic intervals formed by the notes of the C major scale (a diatonic scale). Notice that these intervals, as well as any other diatonic interval, can be also formed by the notes of a chromatic scale.

The distinction between diatonic and chromatic intervals is controversial, as it is based on the definition of diatonic scale, which is variable in the literature. For example, the interval B–E♭ (a diminished fourth, occurring in the harmonic C-minor scale) is considered diatonic if the harmonic minor scales are considered diatonic as well.[9] Otherwise, it is considered chromatic. For further details, see the main article.

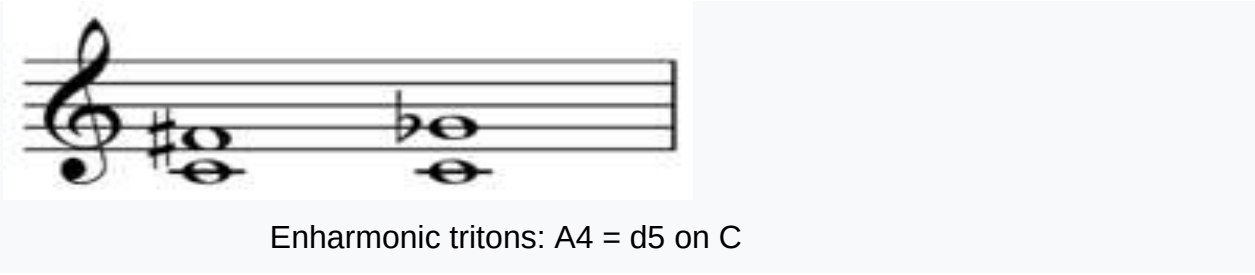
By a commonly used definition of diatonic scale[d] (which excludes the harmonic minor and melodic minor scales), all perfect, major and minor intervals are diatonic. Conversely, no augmented or diminished interval is diatonic, except for the augmented fourth and diminished fifth.



The A ♭ -major scale.

The distinction between diatonic and chromatic intervals may be also sensitive to context. The above-mentioned 56 intervals formed by the C-major scale are sometimes called diatonic to C major. All other intervals are called chromatic to C major. For instance, the perfect fifth A ♭ –E ♭ is chromatic to C major, because A ♭ and E ♭ are not contained in the C major scale. However, it is diatonic to others, such as the A ♭ major scale.

Enharmonic intervals



Enharmonic tritons: A4 = d5 on C

Two intervals are considered enharmonic, or enharmonically equivalent, if they both contain the same pitches spelled in different ways; that is, if the notes in the two intervals are themselves enharmonically equivalent. Enharmonic intervals span the same number of semitones.

For example, the four intervals listed in the table below are all enharmonically equivalent, because the notes F♯ and G ♭ indicate the same pitch, and the same is true for A♯ and B ♭ . All these intervals span four semitones.

Number of semitones	Interval name	Staff positions			
		1	2	3	4
4	major third	F♯		A♯	
4	major third		G♭		B♭
4	diminished fourth	F♯			B♭
4	doubly augmented second		G♭	A♯	

Self-Check – 3	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the correct Answer Questions

Note: **Satisfactory rating - 10 points** **Unsatisfactory - below 10 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

3.1 Sight reading

In music, sight-reading, also called a prima vista (Italian meaning "at first sight"), is the practice of reading and performing of a piece of song in a music notation that the performer has not seen or learned before. Sight-singing is used to describe a singer who is sight-reading. Both activities require the musician to play or sing the notated rhythms and pitches.

People in music literature commonly use the term "sight-reading" generically for "the ability to read and produce both instrumental and vocal music at first sight the conversion of musical information from sight to sound" Udtaisuk and some other authors prefer the use of the more specific terms "sight-playing" and "sight-singing" where applicable. This differentiation leaves a third, more restricted use of the term "sight-reading" for the silent reading of music without creating sound by instrument or voice.

Highly skilled musicians can sight-read silently; that is, they can look at the printed music and hear it in their heads without playing or singing less able sight-readers generally must at least hum or whistle in order to sight-read effectively. This distinction is analogous to ordinary prose reading in late antiquity, when the ability to read silently was notable enough for Augustine of Hippo to comment on it.

The term a prima vista is also used, as Italian words and phrases are commonly used in music and music notation. To play a musical piece a prima vista means to play it 'at first sight'. According to Payne, "the ability to hear the notes on the page is clearly akin to music reading and should be considered a prerequisite for effective performance.... Egregious errors can occur when a student, analyzing a piece of music, makes no effort to play or hear the composition but mechanically processes the notes on the page

Sight transposition

Some musicians can transpose music during performance to suit particular instruments or vocal ranges, to make the playing of the instrument(s) or singing easier, or a number of other uses. For transposing instruments such as the clarinets, trumpets, saxophones, and others, transposing is a necessary skill; for all musicians, it is a useful one.

Sight-playing

According to Udtaisuk, "many [authors] use the term sight-reading for instrumental sight-reading performance." However, Udtaisuk and some other authors use the more descriptive term "sight playing" (or "sight-playing") for instrumental sight-reading, because sight-playing combines two unique skill sets: music reading and music making.

Sight-singing

Some authors, according to Udtaisuk, use the term "sight-singing" for vocal sight-reading. As with sight-playing, Udtaisuk advocates and uses the more descriptive term "sight singing" for vocal sight-reading because sight-singing combines sight-reading and singing skills.

Professional use

Studio musicians (e.g., musicians employed to record pieces for commercials, etc.) often record pieces on the first take without having seen them before. Often, the music played on television is played by musicians who are sight-reading. This practice has developed through intense commercial competition in these industries.

Kevin McNerney, jazz musician, professor, and private instructor, describes auditions for University of North Texas Jazz Lab Bands as being almost completely based on sight-reading: "you walk into a room and see three or four music stands in front of you, each with a piece of music on it (in different styles ...). You are then asked to read each piece in succession."[6]

This emphasis on sight-reading, according to McNerney, prepares musicians for studio work "playing backing tracks for pop performers or recording [commercials]." The expense of the studio, musicians, and techs makes sight-reading skills essential. Typically, a studio performance is "rehearsed" only once to check for copying errors before recording the final track. Many professional big bands also sight-read every live performance. They are known as "rehearsal bands", even though their performance is the rehearsal.

According to Frazier, score reading is an important skill for those interested in the conducting profession and "Conductors such as the late Robert Shaw and Yoel Levi have incredibly strong piano skills and can read at sight full orchestral scores at the piano" (a process which requires the pianist to make an instant piano reduction of the key parts of the score)

Information Sheet 3- Applying interval analysis and aural recognition

3.1 Introduction

In analyzing music written in the 16th-century style, one does not generally use chord analysis, because the music is more centered on proper modal usage, melodic idioms, conventional cadence figures, and consonance. It is therefore more practical to analyze the music in terms of the consonant and dissonant content by looking at the intervals between the voices for any given verticality.

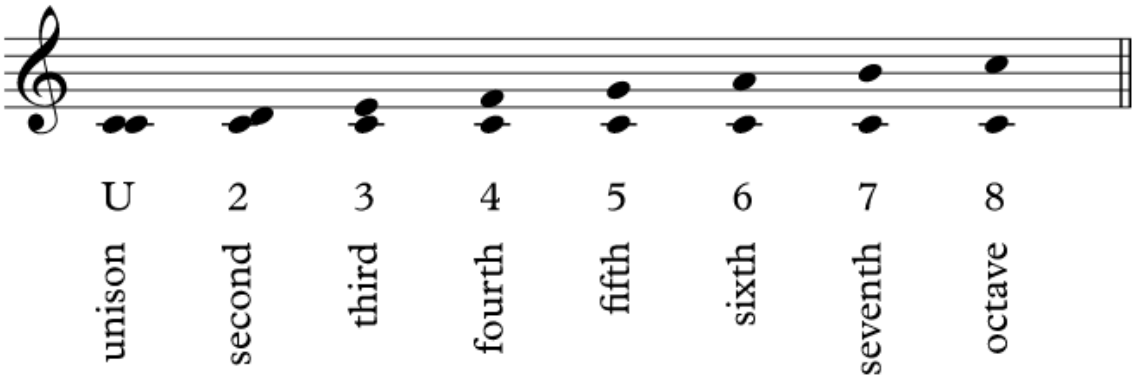
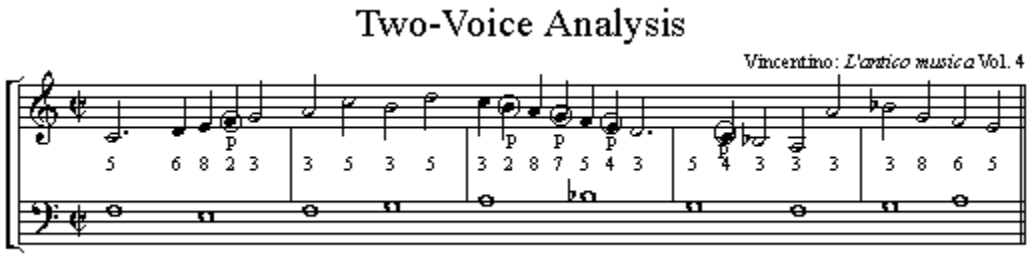
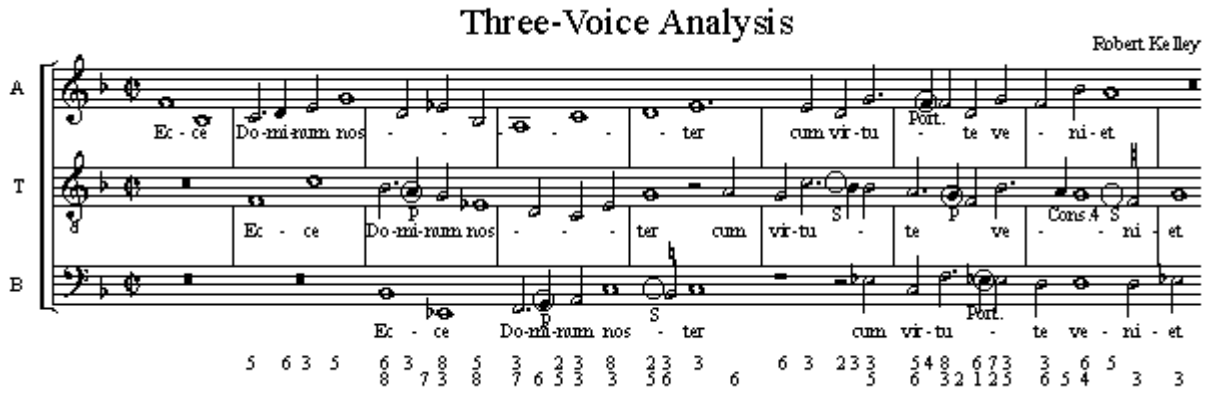


Figure Vertical Interval chart

For two-voice texture, the appropriate interval number (taken from the interval chart) is generally placed between the two voices. All dissonant intervals must be explained by circling the dissonant note and labeling its function.



For three-voice texture, the interval between the top two voices is usually not necessary, and the other two intervals are placed below the music (sometimes in between staves). This is called "Double Analysis":



For four-voice texture, more than four parts, and poly choral style, the same procedure is followed, analyzing intervals above the bass and placing them below the music (giving figured bass, as it were).

Special cases are as follows:

- Basso Seguente: Intervals are always analyzed from the lowest sounding pitch
    - As seen in the three-voice example above, when the lowest voice has a rest, the next highest voice is the "temporary bass"
    - Voice crossing is relatively common in this style, and sometimes the lowest part is not the lowest sounding voice
- Triple Analysis: Sometimes the consonance of the intervals between the upper voices is necessary. The cases in which one must use "Triple Analysis" are:
    1. Whenever the lowest note is dissonant the upper voices must be consonant with one another.
    2. When another voice skips against a passing tone it must be consonant both with the passing tone and the sustaining voice.
    3. When both a fifth (5) and a sixth (6) are present above the bass in a four- (or more) voice texture, all voices except the 6 must be consonant with the 5.
    4. Whenever there are simultaneous black notes in two or more voices, they all must be consonant with each other
    5. Whenever there are two simultaneous passing tones, they must be consonant with each other

Two-Voice Texture

I. General Part-Writing Rules

- Must start with a perfect interval (PP, P5, P8)
- In the middle of phrases imperfect consonances prevail (3,6)
- Must end with a perfect interval
- No augmented or diminished intervals
- No parallel octaves or fifths
- Octaves are approached only by contrary or oblique motion (usually stepwise)
- No direct fifths
    - Top voice must step into a perfect fifth when using parallel motion
    - Fifths can be approached by contrary motion
    - 5-6 technique is good fifth usage
- Clausula vera must appear at cadences (6-8, 3-1, 10-8)

II. Treatment of Dissonance in White Notes

- White-Note Rules
    - Dissonance is always handled by step
    - The only allowed dissonant white note values are minums
- White-Note Dissonances

1. Suspensions
    - The dissonance must occur on a strong beat (1 or 3)
    - The dissonance is always approached by common tone (oblique motion)
    - The note becomes dissonant against another (moving) voice by suspending it into the strong beat
    - Suspensions always resolve downward by step
    - Suspensions are usually "tied" into the strong beat, but occasionally the suspension is a repeated note
    - 7-6 and 2-3(bass) suspensions are common, try avoiding 4-3 suspensions in two-voice textures, 9-8 is never used in two voices
2. Passing tones
    - The dissonance must occur on a weak beat (2 or 4)

- The dissonance is always approached by step
- The motion into the dissonance must occur against a stable voice (semibreve)
- Passing tones always resolve by step in the same direction they were approached
- The other voice can move during the resolution (but not the dissonance)
- Downward passing tones are much more common than upward passing tones

III. Treatment of Dissonance in Black Notes

- Semiminum Rules
  - Dissonance is always resolved by step (except for the cambiata)
  - Semiminum dissonance is almost always on the weak half of a beat
- Semiminum Idioms

1. Passing tones
   1. Unaccented PTs can occur on the weak half of any beat
   2. Same guidelines as for minims (see above)
2. Accented passing tones
   1. Accented passing tones are less common than unaccented passing tones
   2. Accented passing tones appear only on weak beats (2 or 4)
   3. Accented passing tones always resolve down (by step), never up
3. Neighbor Tones
   1. Neighbor figures can occur on the weak half of any beat.
   2. The dissonance is always approached by step and resolved by step in the opposite direction (returning to the original note)
   3. An upper neigbor figure can never be dissonant (5-6-5 is allowable)
4. The Portamento (the Anticipation)
   1. Anticipations occur only on the weak halves of the strong beats (1 and 3)
   2. The dissonance is always approached by step and resolved by repeated common tone
   3. Always uses descending motion, never ascending motion
5. The Nota Cambiata
   1. The cambiata can occur on the weak half of any beat

2. The dissonance is always approached by descending step, and left by the descending leap of a third
3. The leap is always balanced, almost always by upward step
4. This is the only figure in 16th-century style where a voice leaps from a dissonance

- Fusa Rules
  - Fusas always appear in pairs
  - Fusas always appear on the weak half of the beat.
  - If the first fusa is dissonant, it must resolve down
  - If the second fusa is dissonant, it can go either up (if it is a neighbor tone) or down (if it is a passing tone)
- Fusa Idioms

. Neighbor Tones (common after suspensions and syncopations)

a. Passing Tones (not as common)

Other general rules:

- Simultaneously sounding semiminums must always be consonant with each other
- Suspensions in semiminums are forbidden
- In special cases a semiminum passing tone can resolve into an accented passing tone

Self-Check – 3	Written test

Name…… ID…… Date…….

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: Choose the correct Answer Questions

Note: **Satisfactory rating - 10 points** **Unsatisfactory - below 10 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Operation Sheet 2- Techniques of Reading music notation

The techniques for Reading music notation are;

1. Learn the Basic Symbols of Notation (the staff, the clefs, and the notes ,etc..)
2. Pick Up the Beat (know its meter, song's time signature)
3. Play a Melody (look a scales, understand key signatures)
4.

Operation Sheet 2- Techniques of Identifying music notation

The techniques for Identify music notation are;

1. Learn the Basic Symbols of Notation Inspect tools and multimeters are available and functional. Report any problems to the instructor.
2. Inspect specifications for cables and wire are with correct loading.
3. Check for functionality of receptacles, switches and circuit breakers with the help of multimeter.
4. Connect cables to the manin power distribution board with correct lines.
5. Extend the lines in (step 5) to the room.
6. Connect lines to the circuit breaker.
7. Extend wire from circuit breaker to sockets/receptacles
8. Install line to switch.
9. Check for continuity and ground resistance with the help of multimeter by Puting on the diode symbol dial.
10. Measure current, voltage and oxygen level with the help of testing device.

LAP TEST	Performance Test

Name……. ID……..

Date…….

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within **1** hour. The project is expected from each student to do it.

Task 1: Install cables and wires

Task 2: Test cables and wires

Task 3: Check ground resistance

Task 4: Check oxygen purity using analyzer

Reference Materials

Book:

1. Pasco-Data Studio, http://www.pasco.com, feature software and hardware for this purpose.
2. E. Huggins, “Teaching Fourier analysis in introductory piano,” Phys. Teach. 45, 26–29 (Jan. 2007).
3. T.D. Rossing, F.R. Moore, and P.A. Wheeler, The Science of Sound, 3rd ed. (Addison-Wesley, San Francisco, 2002), p. 95.
4. J.G. Roederer, The Physics and Psychophysics of Music– An Introduction, 3rd ed. (Springer-Verlag, NY, 1995), p. 47.

5. The augmented-fourth or diminished-fifth, also known as the “tritone” in Just intonation, is the ratio 45/32. The reason for the use of 7/5, the “septimal” tritone, can be seen in Fig. 6. See W. A. Sethares,
6. Tuning, Timbre, Spectrum Scale, 2nd ed. (Springer, London, 2005), p.101. 7. See Partch’s 43-tone scale, Ref. 6, p. 62.
7. M.C. LoPresto, “Experimenting with musical intervals,” Phys. Educ. 38, 309–315 (July 2003).

WEB ADDRESSES

1. www.frankshospitalworkshop.com
2. http://www.Physics of music2000.com.

AKNOWLEDGEMENT

We wish to extend thanks and appreciation to the many representatives of TVET instructors and respective industry experts who donated their time and expertise to the development of this Teaching, Training and Learning Materials (TTLM).

We would like also to express our appreciation to the TVET instructors and respective industry experts of Regional TVET barruues, TVET college/ Institutes, Federal Technical and Vocational Education and Training Agency (FTVET) who made the development of this Teaching, Training and Learning Materials (TTLM) with required standards and quality possible.

This Teaching, Training and Learning Materials (TTLM) was developed on April 2021 at Adama Comfort international Hotel.

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Self- check answers **LO1** Become familiar with the piano

Information Sheet 1- Understanding the piano instrument

1. B
2. C
3. A
4. A
5. C

Information Sheet 2- Understanding the range, capability and sound characteristics of the piano

1. False
2. True
3. False
4. False
5. True

Information Sheet 3- Utilize musical symbols

1. C
2. B
3. C
4. A
5. B

Information Sheet 4- Assessing physical condition and vital signs

1. B
2. D
3. C
4. D
5. B

Information Sheet 4- Identify rhythms accurately in 2/4, 3/4, and 4/4 meters

1. C
2. B
3. D
4. A
5. B

Self-check answers LO2 Apply basic first aid techniques.

Information Sheet 1- Caring and comforting casualty

1. False
2. True
3. True
4. False
5. True

Information Sheet 2- Providing first aid care in accordance with procedures.

1. D
2. B
3. A
4. C
5. C

2.1. Information Sheet 3- See assistance from others as appropriate

1. B
2. D
3. C
4. A
5. D