

Sacred Music Institute 2017

# **Western Music Notation & Theory**

Taught by

**Nancy Long & Danielle Prontka**

This class will provide a basic foundation in the various elements of western music notation and theory. We will be incorporating exercises into each session to help solidify your skills.

We will begin with the notes on the staff, followed by rhythm, meter, time signatures, and note values. We will also learn about keys, intervals, major & minor scales and the circle of fifths. We'll discuss tips and techniques to help you improve your sight-reading skills.

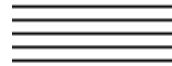
In addition, we will learn how to give pitches from a pitch pipe, tuning fork or phone app. If you have any of these, please bring one or more with you to class.



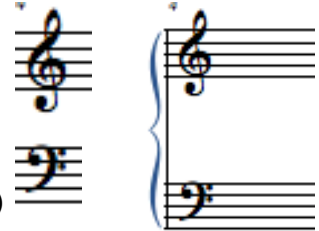
## I. Fundamentals

### A. Staff, Clef, and Notes

1. Staff: playing field
  - a. Five horizontal lines, equally spaced, with four spaces in-between
  - b. Vertical dimension: pitch – how high or how low the note sounds
  - c. Horizontal dimension: time – how long each note lasts, how many notes in a measure, etc.



2. Clefs: define the context, what pitches go where
  - a. Treble Clef: Identifies the note G; also called G-Clef
    - i. Wraps around the note G (second line)
  - b. Bass Clef: Identifies the note F; also called F-Clef
    - i. two dots sit on either side of the note F (fourth line)
  - c. Grand Staff
  - d. Other clefs (Alto, Tenor, etc.) – midpoint is middle C

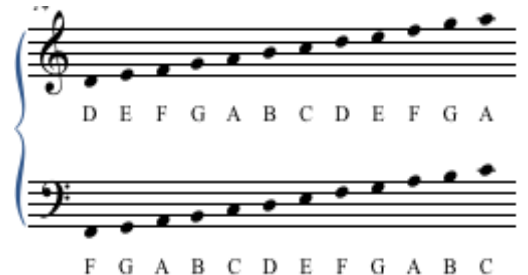


3. Key Signature
  - a. Indicates the key
  - b. shown in sharps or flats (or none)
4. Time Signature
  - a. Indicates what type of note gets the beat
  - b. Indicates how many beats in one measure



5. Notes:
  - a. identified by the first seven letters of the alphabet: A, B, C, D, E, F, G, A...
  - b. placed on lines or spaces;
  - c. denotes the pitch

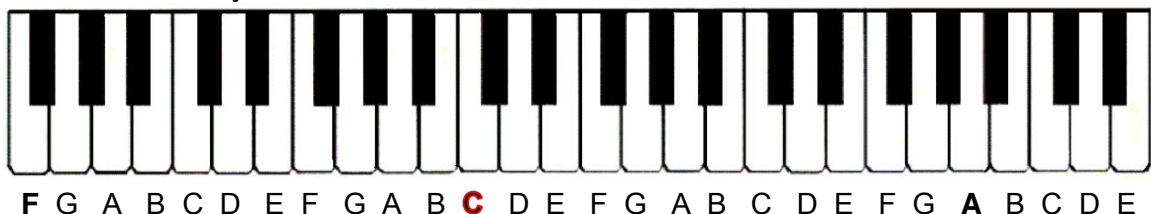
6. Leger lines
  - a. Placed above or below the staff to extend the staff
  - b. Just long enough for one note
  - c. Need enough to continue the lines to your note
  - d. Special Leger Line: Middle C



7. Accidentals -- change the note
  - a. # = raises the note a half-step
  - b. b = lowers the note a half-step
  - c. ♮ = cancels either a previous accidental or a sharp or flat in the key
  - d. x = double sharp = raises the note a whole step
  - e. bb = double flat = lowers the note a whole step
  - f. Enharmonic equivalents

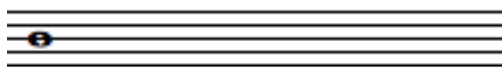
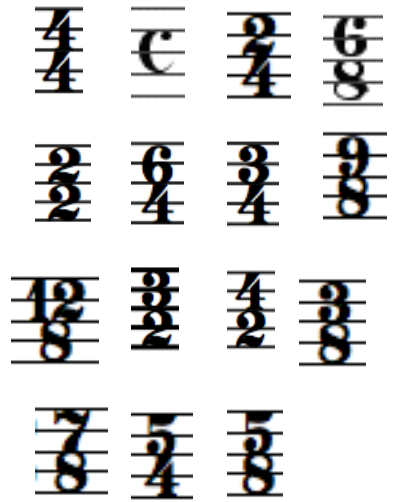


8. Notes on a keyboard:

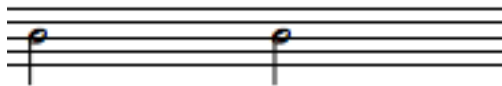
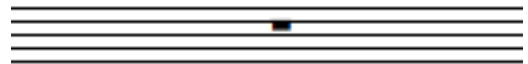


## B. Time, Beat, Rhythm, Meter

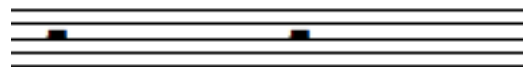
1. Time Signature
  - a. Top number: how many beats in the measure
  - b. Bottom number: what type of note gets one beat
  - c. Provides the structure in time
2. Beat or Pulse:
  - a. equal division of time, like the ticking of a clock
    - i. like tapping your toe to the music
    - ii. metronome
  - b. can range from slow to fast
  - c. provides the foundation around which the rhythm is built
3. Note and Rest Values:



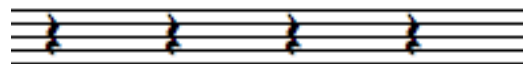
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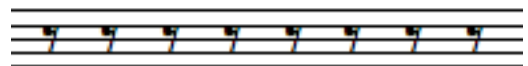
Half



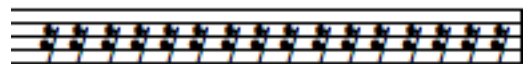
Quarter



Eighth



Sixteenth



- a. Flags & beams
- b. Dotted values – add half the value
- c. Exercise: time signatures
4. Measure or Bar
  - a. Divides up the music based on time signature
  - b. Suggests common stresses
  - c. Example: common stresses for 4/4, 3/4, 2/4.
5. Rhythm: the arrangement of note durations
  - a. Common rhythmic patterns
  - b. Exercises: clapping out rhythms
  - c. Counting rhythms
    - i. Numbers: one, two and three and a four

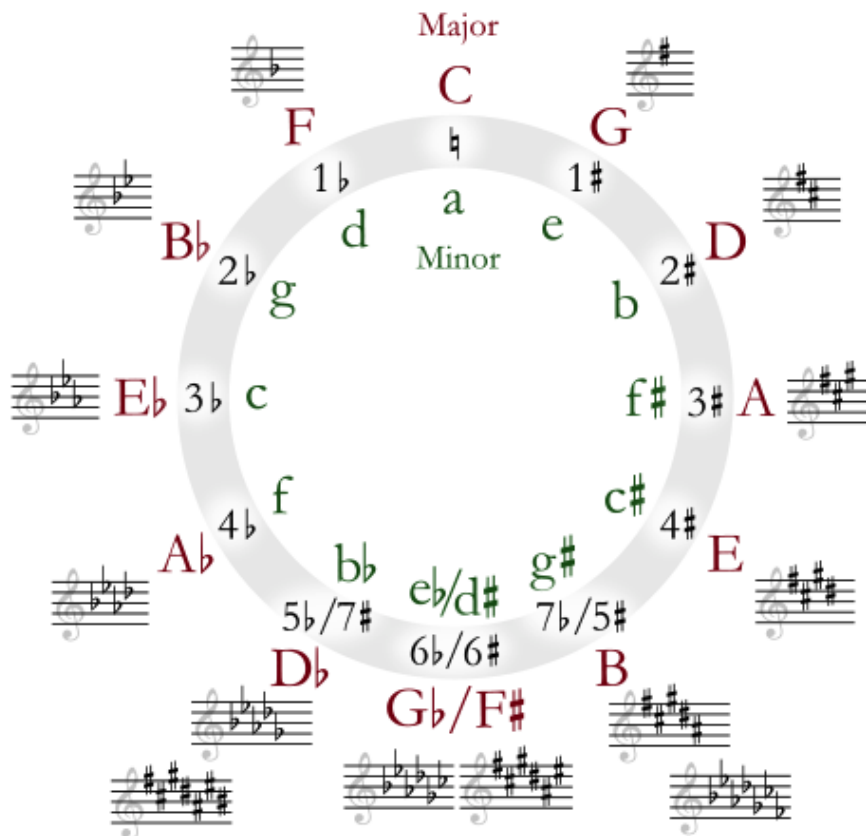


- d. Tie – combines the length of two or more notes of the same pitch across the bar line
- 6. Meter
  - a. Simple – can be subdivided into 2: 2/4, 3/4, 4/4
  - b. Compound – can be subdivided into 3: 6/8, 9/8, 12/8

## II. Scales & Keys

### A. Scales


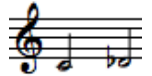

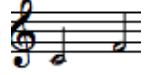

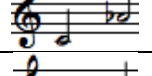
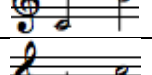
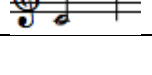
1. Combination of whole and half steps from one pitch to the same pitch 8 notes above
2. Major – whole, whole, half, whole, whole, whole, half
3. Minor
  - a. Natural– whole, half, whole, whole, half, whole, whole
  - b. Melodic Ascending – whole, half, whole, whole, whole, whole, half
  - c. Melodic Descending – like Natural Minor
  - d. Harmonic – whole, half, whole, whole, half, augmented 2<sup>nd</sup>, half
4. Chromatic – all half steps
5. Whole Tone – all whole steps
6. Pentatonic – comprised of a five-note scale
7. Relative major & minor keys – have the same key signature
8. Circle of fifths



9. Key Signature – how to determine
  - a. Sharp keys: up a half step from the last sharp in the key signature
  - b. Flat keys: the penultimate flat designates the key (key of F has one flat)
10. Exercise: identify keys of hymns from our music

**B. Intervals** – space between pitches

1. **Melodic** – played one after the other
2. **Harmonic** – played together

Interval name	What it looks like in key of C	Tips & Tricks
Unison		
Half step		Jaws O Little Town of Bethlehem
Whole step		Happy Birthday Yesterday (Beatles)
Minor Third		To Dream the Impossible Dream Frosty the Snowman
Major Third		Kumbaya Beethoven's Fifth Symphony
Perfect Fourth		Here comes the Bride O Come All Ye Faithful
Augmented Fourth, Diminished Fifth, Tritone		Maria (West Side Story) Sound of Music – last phrase I'll sing
Perfect Fifth		Twinkle, Twinkle Flintstones Theme
Minor Sixth		Sad NBC The Entertainer
Major Sixth		My Bonnie Lies Over... Nobody Knows the Trouble I've Seen
Minor 7 <sup>th</sup>		There's a Place for Us White Christmas last phrase
Major 7 <sup>th</sup>		Bali Hai (first & third notes) Have yourself a merry (last phrase)
Octave		Somewhere Over the Rainbow No Business Like Show Business

3. Tips & Tricks
4. Exercise: Identify intervals by sight
5. Exercise: Sing intervals
6. Exercise: Identify intervals by sound

### C. Chords

1. Typically the 1, 3, 5 & 8 of the scale
2. Exercise from the pitch-giving book
3. Exercise: sing major or minor chord given the Root
4. Triads
  - a. Tonic
  - b. Dominant
  - c. Subdominant
5. Major: Major 3<sup>rd</sup> and Minor 3<sup>rd</sup>
6. Minor: Minor 3<sup>rd</sup> and Major 3<sup>rd</sup>
7. Augmented & Diminished
8. Seventh Chords
9. Inversions – the chord is built on a note other than the tonic



Root Position	The Root or Tonic is on the bottom; this is the most final sounding position; most music ends this way
First Inversion	The Third of the chord is on the bottom
Second Inversion	The the Fifth of the chord is on the bottom
Third Inversion	The Seventh of the chord (if any) is on the bottom

10. Exercise: identify chords by sound
11. Exercise: sing major or minor scale or triad given the tonic

### D. Tempo, Dynamics, Articulation

1. Tempo: speed
  - a. Grave
  - b. Largo
  - c. Lento
  - d. Adagio
  - e. Andante
  - f. Moderato
  - g. Allegretto
  - h. Allegro
  - i. Vivace
2. Beats per Minute
  - a. ♩=120
3. Dynamics: loudness or softness

<i>ppp</i>	<i>pp</i>	<i>p</i>	<i>mp</i>	<i>mf</i>	<i>f</i>	<i>ff</i>	<i>fff</i>
Very, very soft	Very soft	Soft	Medium soft	Medium loud	Loud	Very loud	Very, very loud

4. Articulation: how to sing the note
  - a. Staccato: •
  - b. Stress: –
  - c. Accent: >
  - d. Slur – connection between different notes on the same word



### III. Sight Reading/Ear Training

- A. Technique for sight reading: Lots to do before you open your mouth!
  1. Identify the Clef
  2. Identify the Key
    - a. Look at key signature – could indicate major or minor
    - b. Look at the starting & ending notes
  3. Sing the tonic triad to establish the key in your ear
  4. Identify time signature
  5. Identify scale level of the first note/chord
  6. Identify the beat of the first note
  7. Look over the structure
    - a. Are there repeated passages?
    - b. Does the key stay consistent, or does it change?
    - c. Are there accidentals?
    - d. Is the time signature consistent, or does it change?
  8. Different ways to sight-read
    - a. sing on a neutral syllable
    - b. sing with words
    - c. read the words in rhythm
    - d. say numbers in rhythm
    - e. sing Solfege syllables
      - i. “Moveable Do”: “Do” is on the root of the key
      - ii. “Fixed Do”: “Do” is always on Middle C
  9. Establish the key and starting pitch
  10. Establish a beat – start out slowly
  11. Read it like you know it!

### IV. Giving Pitches – Understand notes and chords, then practice!

- A. Take the pitch from any combination of...
  1. Tuning Fork – convert the tone into the key that you need: ***Pitch-Giving for the Unaccompanied Choir***
  2. Pitch Pipe – choose either the root or fifth of the key and give the chord to your choir
  3. Pitching app – play one note and pitch from there or play each note of the starting chord
    - a. Many pitching apps are available for phones and tablets
  4. Keyboard



## Exercise: Naming Notes

### Treble Clef



Musical notation for Treble Clef, measures 1 through 31. The notation is in 4/4 time and consists of a single melodic line. The notes are as follows:

Measure	Note
1	C4
2	D4
3	E4
4	F4
5	G4
6	A4
7	B4
8	C5
9	B4
10	A4
11	G4
12	F4
13	E4
14	D4
15	C4
16	B3
17	A3
18	G3
19	F3
20	E3
21	D3
22	C3
23	B2
24	A2
25	G2
26	F2
27	E2
28	D2
29	C2
30	B1
31	A1

### Bass Clef



Musical notation for Bass Clef, measures 1 through 31. The notation is in 4/4 time and consists of a single melodic line. The notes are as follows:

Measure	Note
1	C2
2	D2
3	E2
4	F2
5	G2
6	A2
7	B2
8	C3
9	B2
10	A2
11	G2
12	F2
13	E2
14	D2
15	C2
16	B1
17	A1
18	G1
19	F1
20	E1
21	D1
22	C1
23	B0
24	A0
25	G0
26	F0
27	E0
28	D0
29	C0
30	B-1
31	A-1

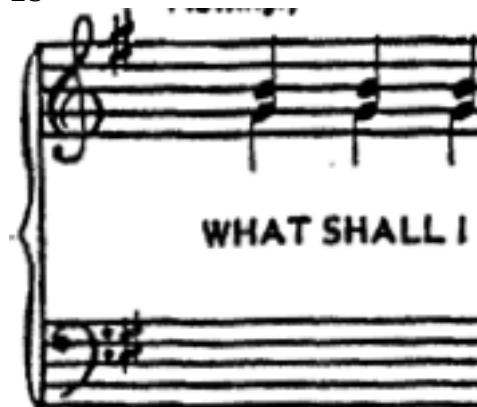


# Key Signature Exercise

<p>1</p> <p>Lord, have mer-cy.</p>	<p>2</p> <p>Lord, have</p>	<p>3</p> <p><i>mf</i> Al - le - lu</p>
<p>4</p> <p>It is tru - ly</p>	<p>5</p> <p>O un - dis</p>	<p>6</p> <p>Lord, have</p>
<p>7</p> <p>Lord, have mer - cy.</p>	<p>8</p> <p>Fa - ther, —</p>	<p>9</p> <p>Lord, have mer - cy.</p>
<p>10</p> <p><i>p</i> We</p>	<p>11</p> <p><i>p</i> A - men.</p>	<p>12</p> <p>A - men.</p>

<p>13</p>  <p>of praise.</p>	<p>14</p>  <p><i>pp</i> Sa -</p>	<p>15</p>  <p>The — light.</p>
<p>16 -beginning</p>  <p>Praise</p>	<p>17 -end</p>  <p>ia.</p>	<p>18</p>  <p>Lord, have mer - cy.</p>
<p>19</p>  <p>Lord, — now</p>	<p>20</p>  <p>Mas-ter, bless. (Fa-ther, bless.</p>	<p>21</p>  <p>Lord, now</p>
<p>22</p>  <p>Glad - some</p>	<p>23</p>  <p>Re - joice,</p>	<p>24</p>  <p>Lord, now</p>

25



26



27



28



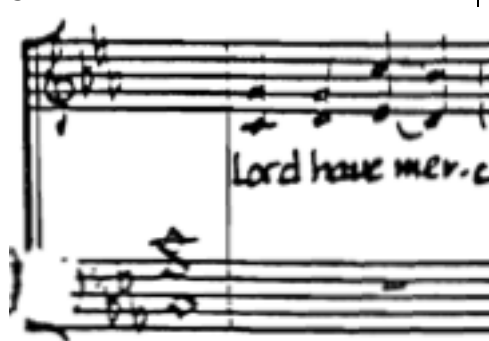
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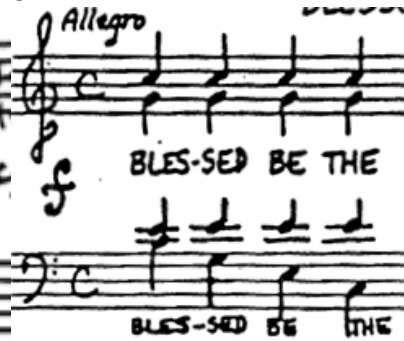
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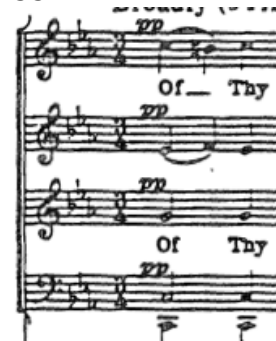
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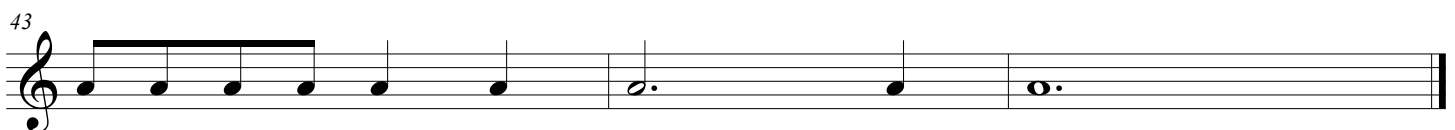
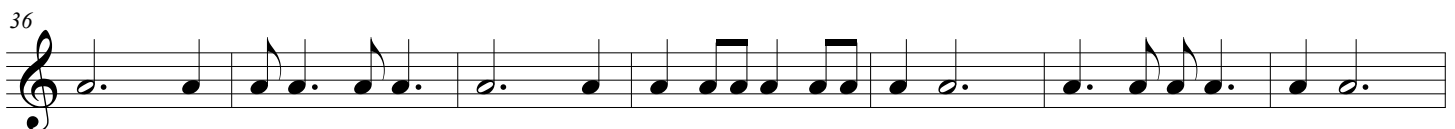
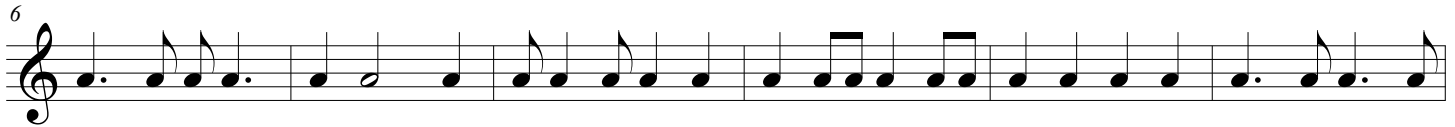


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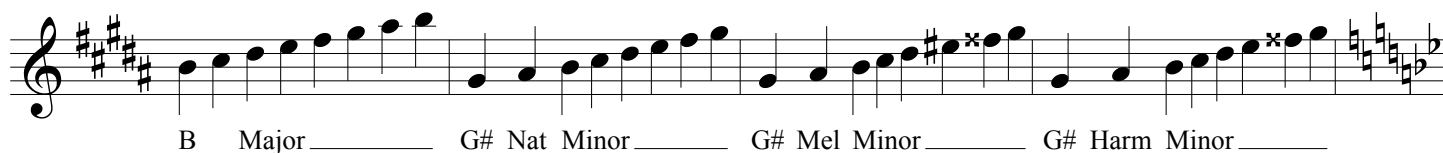
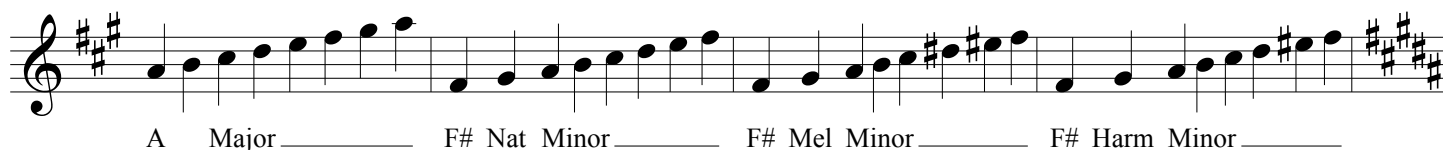
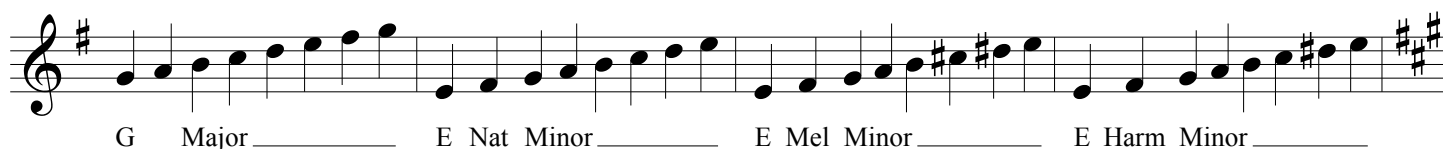
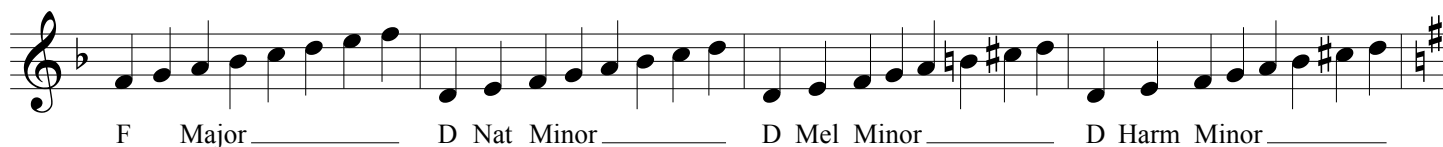
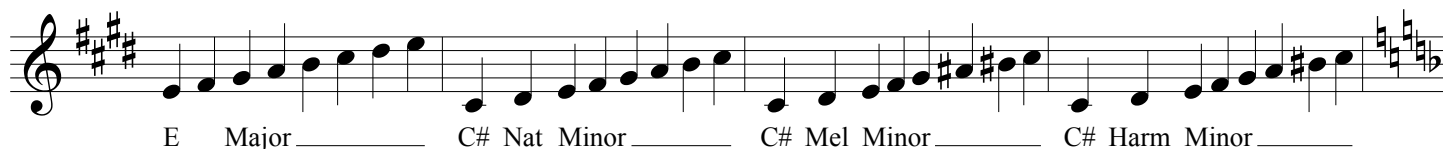
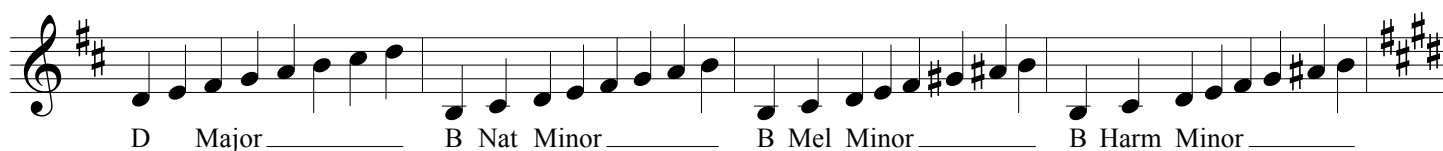
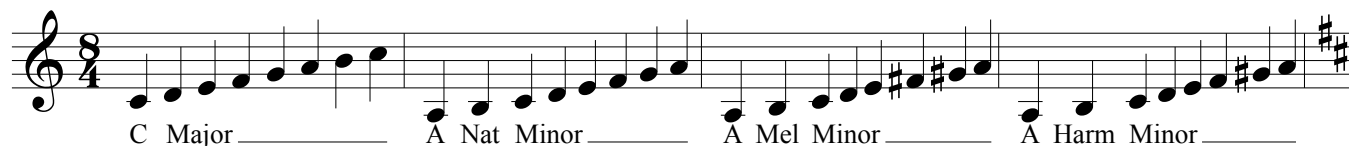
# Rhythm Exercise








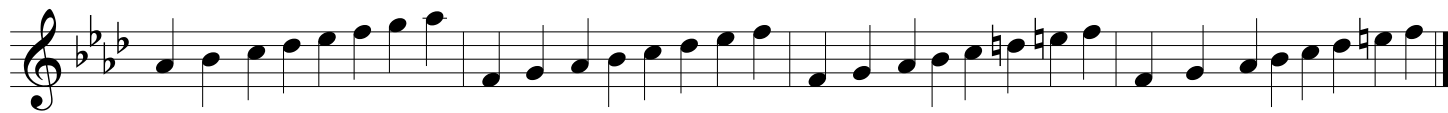
# Major and Minor Scales





First musical staff showing four scales in E-flat major (three flats):

- E Flat Major \_\_\_\_\_
- C Nat Minor \_\_\_\_\_
- C Mel Minor \_\_\_\_\_
- C Harm Minor \_\_\_\_\_



Second musical staff showing four scales in A-flat major (four flats):

- A Flat Major \_\_\_\_\_
- F Nat Minor \_\_\_\_\_
- F Mel Minor \_\_\_\_\_
- F Harm Minor \_\_\_\_\_

**Antiochian Orthodox Christian Archdiocese  
Department of Sacred Music**

*An Introduction to*

**PITCH GIVING**

*for the*

**UNACCOMPANIED CHOIR**

**By James Meena**

# **An Introduction to Pitch Giving for the Unaccompanied Choir**

**By James Meena**

## **Preface**

The Orthodox Church has a rich tradition of singing. Over the centuries, this tradition has developed into one of the most beautiful examples of devotion expressed through music. Whether the style is Byzantine or Slavonic, the wisdom of this musical tradition has been proven time and again.

There is an overriding principle in this tradition – that the music of the Church not be accompanied by instruments; that the human voice alone is the most appropriate instrument for praise and supplication.

One of the reasons for this unaccompanied tradition is the desire of the Church to make its music distinct from the music of the street. If you prefer folk masses and Christian rock to Tone 1, or if you feel Beethoven's *Missa Solemnis* or Handel's *The Messiah* are just as appropriate forms of expression for church services as *The Divine Liturgy of St. John Chrysostom*, then you will always feel unfulfilled by your musical experiences in the Orthodox Church. In order to fulfill our mission as Church musicians, however, we should accept her traditions in their entirety; not taking parts of it that we like and discarding the rest.

This manual uses *solfege* and *sight reading* skills. These are basic tools which every musician should master. Solfege syllables are given in movable *do* since, for purposes of singing in the Orthodox Church, pitch is relative and continuity between the celebrant and the choir, and from one composition to the next are important goals.

It will help your progress to sing the exercises in solfege syllables rather than using note names or a neutral syllable. In movable *do*, solfege syllables indicate the relationship between tones, rather than the actual pitches, making this system very applicable to our work with the Orthodox Church choir.

This is not, however, a solfege/sight singing manual, but rather a guide to one method by which the choir master can become independent of the organ or pitch pipe and achieve greater flexibility and confidence in guiding the choir through the service. The approach taken may be different from other texts with which you are familiar, and there are always points and assumptions to be debated; but I hope you find the methodology to be sound and effective.

Once you have mastered the techniques contained herein, and gained confidence and self-reliance, you will develop your own technique for pitch giving and sight singing.

## Part I Getting Started

A good foundation is necessary for a strong structure. The following are basic exercises that can be practiced anywhere and at any time.

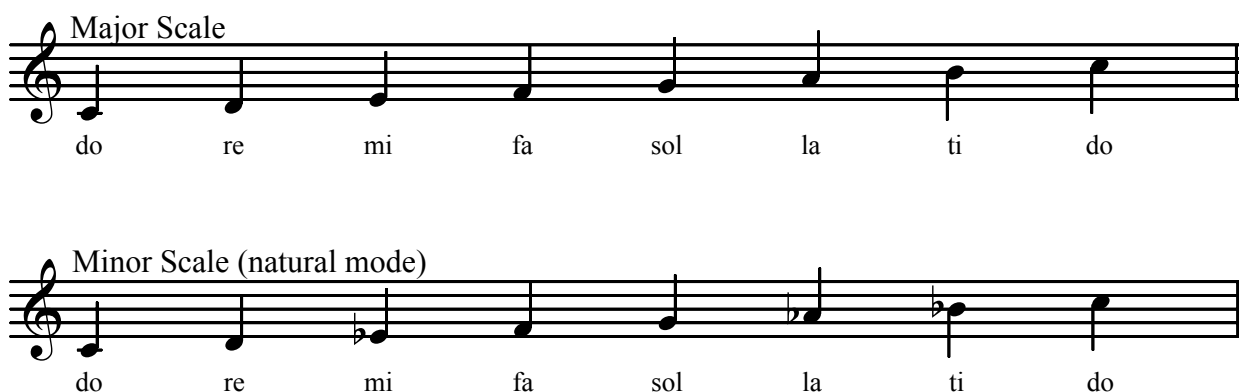
### A. SCALES

Everyone hates practicing scales - just ask any 10 year old practicing the piano. But, maximum comfort with pitch giving is accomplished when the choir director first has mastery over the major and minor scales.

#### Exercise 1

Practice singing major and minor scales in all eight keys, from bottom to top and back again, using the following scales.

##### Example 1



For this exercise, begin in C major / C minor, then transpose the scale up in half steps without giving yourself the new starting note.

From time to time check yourself by using a pitch pipe or keyboard.

#### Exercise 2

Taking the above models, go from singing a major scale to singing a minor scale, back and forth until complete confidence is accomplished. The key is not important, so pick a starting pitch which is comfortable.

#### Exercise 3

We are now going to eliminate certain notes from each scale in order to establish interval relationships between notes.

Using Example 2, start by singing the pitches given in capital letters and humming those in lower case.

Next, think the lower case pitches rather than singing them. Next, eliminate them altogether, singing only the pitches given in capital letters.

Begin with a major scale. When you are ready to continue, work on the minor scale.

### Example 2

<b>DO</b>	re	<b>MI</b>	fa	<b>SOL</b>	la	ti	<b>DO</b>
<b>(ROOT)</b>	(second)	<b>(THIRD)</b>	(fourth)	<b>(FIFTH)</b>	(sixth)	(seventh)	<b>(ROOT)</b>
<b>(C)</b>	(d)	<b>(E)</b>	(f)	<b>(G)</b>	(a)	(b)	<b>(C)</b>

Note that the solfege syllables are given first, next the relationship between the starting tone (root) and the subsequent notes above it (the interval), and finally pitch names as if we were in C major.

### B. TRIADS - a sequence of pitches constructed in thirds

#### Exercise 4

Practice singing open and closed position major and minor triads in all eight keys using the bottom note (*the root*) as your starting tone and singing up the triad to the top note and back again. As we did with the scales, begin in the key of "C" and transpose up or down in half steps without giving yourself the new starting note. Periodically check your accuracy with a keyboard or pitch pipe.

Example 3. Open position triads (so called because we are *opening up* the repetition of the top root, *do*, and using *do, mi, sol, do*).

Major triad (open)

do mi sol do sol mi do

Minor triad (open)

do mi sol do sol me do

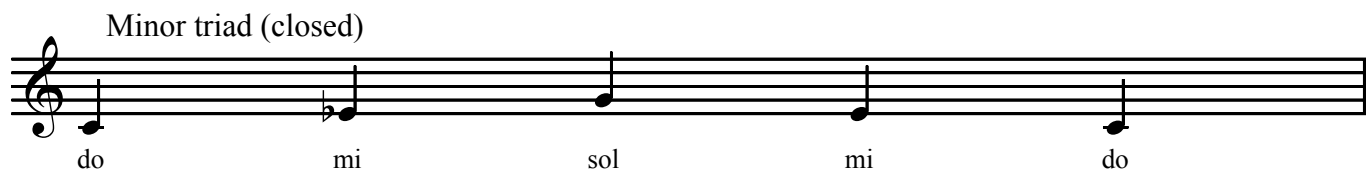
The image shows two musical staves. The first staff is for a Major triad (open) and the second is for a Minor triad (open). Both staves use a treble clef and a key signature of one flat (Bb). The Major triad notes are C4 (do), E4 (mi), G4 (sol), C5 (do), G4 (sol), E4 (mi), and C4 (do). The Minor triad notes are C4 (do), Bb4 (mi), D5 (sol), C5 (do), D5 (sol), Bb4 (me), and C4 (do). The notes are written as quarter notes on a five-line staff.

Example 4. Closed position triads (so called because we are *closing off* the repetition of the top root, *do*, and using only *do, mi, sol*).

Major triad (closed)

do mi sol mi do

The image shows a musical staff for a Major triad (closed). It uses a treble clef and a key signature of one flat (Bb). The notes are C4 (do), E4 (mi), G4 (sol), E4 (mi), and C4 (do), written as quarter notes on a five-line staff.



### Exercise 5

Taking the above models, go from singing major triads to minor triads, in both closed and open positions, back and forth until you have mastered this portion. The key is not important, only the relationship between major and minor counts right now.

### Exercise 6

Practice singing these same major and minor triads in all eight keys, *reversing the order this time*, starting on the top note (upper root or fifth) and singing to the bottom note (root). As we did with the scales, begin in the key of "C" and move up or down in half steps, without giving yourself the new starting notes on a pitch pipe or keyboard.

Continue working in this manner until you are very confident with singing triads without the aid of a keyboard instrument or pitch pipe.

## **Part II Key Relationships**

C. Two points which are important to keep in mind as we continue.

1. For the purpose of singing in the Orthodox Church, the key of a work is less important than the relationship of the starting tone (*do* or the *root*) to the music which has been sung before it.

Consider the following scenario.

Let's say you have a celebrant who has little innate musical ability, but through the years of experience knows what he can and cannot sing. Let's also say that this celebrant has learned through the years of experience where the most comfortable starting tone for him is, and that regardless of the key in which the choir is singing, the celebrant sings his comfortable tone like an immovable rock.

Sound familiar? Now, let's say that the celebrant's immovable starting tone is *Ab*.

Since much of the music currently in use in the Antiochian Archdiocese is written in F major, under the above scenario the choir master who insists on singing compositions in the key

in which they are written will be consigned to a lifetime of pitching the choir in conflict with the celebrant's rock-like starting tone - or worse, the *A natural* which the sopranos would be singing in F major would be constantly challenged by the celebrant's *Ab*.

To avoid this scenario, try transposing the music so the celebrant's tone fits the key of music to be sung, and encourage the choir to be flexible, rather than fight for control of the key. If you agree with this train of thought, then you must accept the fact that a composition written in any key may be performed equally well in a close neighboring key.

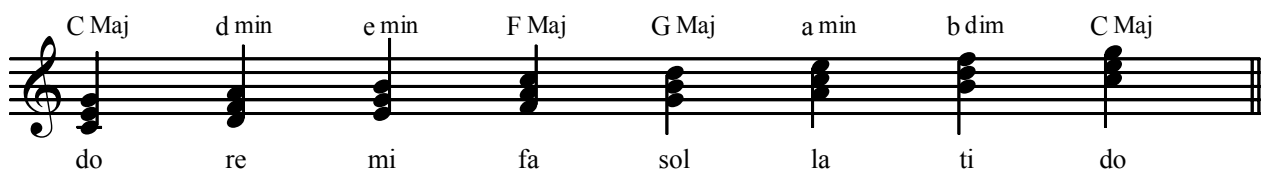
However, we should be careful not to change (transpose) the key to a distant neighboring key. Transpositions which are made for the sake of continuity should be kept close to the neighboring keys, i.e., not greater than a whole step away on either side. But, even this small amount of flexibility gives the choir master complete control over the entire spectrum of pitches.

*Notation: Historically, the standardization of pitch has been an on-going process. Indeed, we know that the starting "A" used by Bach and Handel was a full step lower than the 440Hz that is today's standard. Further, today's orchestras tend to tune even higher than 440Hz. Rigidity in pitch is a Western concept, foreign to Eastern music, and while there are distinct colors derived from particular keys, we can say with some assurance that if we transported Bortniansky through time, we would find that his F major is roughly the equivalent of today's Eb major.*

### Exercise 7

Practice singing each of the following triads. Feel free to utilize a keyboard instrument until you are ready to go it alone.

#### Example 5



### Exercise 8

Practice the following triadic exercise using solfège syllables rather than note names. First designate C as *do*, then begin to transpose the starting tone up in half steps, keeping the syllables the same regardless of the starting tone. That is, when singing this exercise in E major, the first *E* becomes *do* - when in F major, the first *F* becomes *do*, etc.



## Example 6



*Memorizing the relationship between the triad built on "do" to that built on every other note thereafter is important to gaining freedom in pitch giving.*

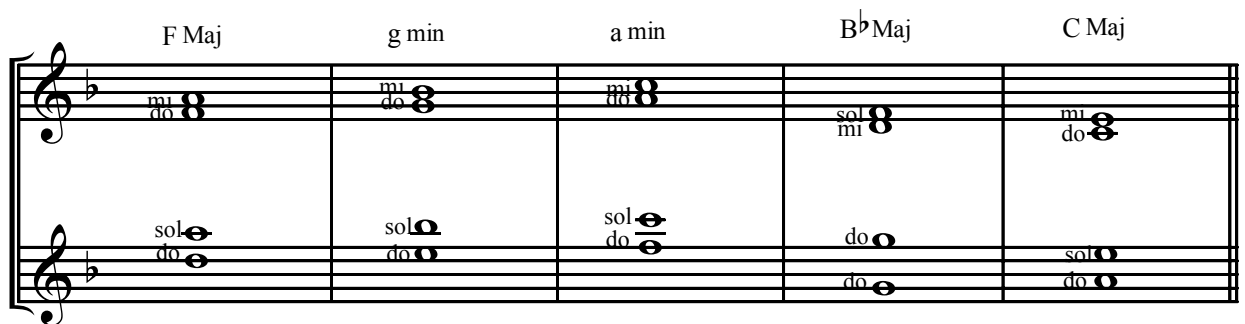
D. Inversions - or turning the chord inside out.

1. Four-part choral music begins in either the closed or open position adapted to the voicing of the choir.

## Exercise 9

Practice singing the following closed position chords.

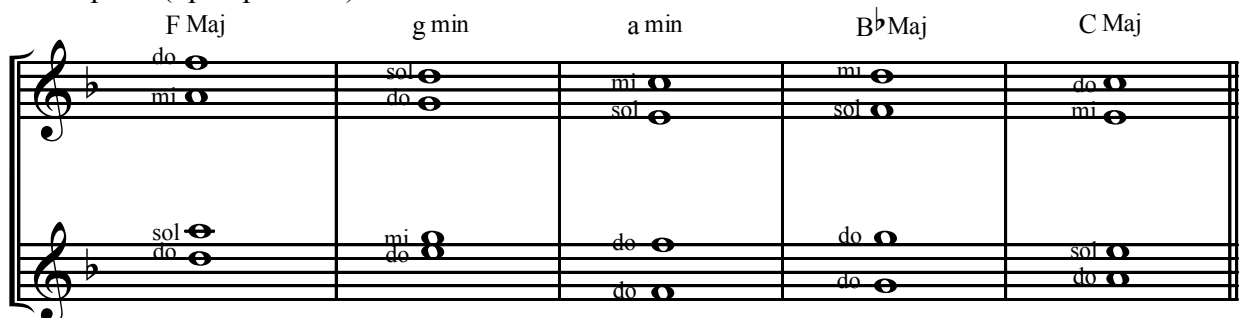
Example 7 (closed position)



## Exercise 10

Practice singing the following open position chords.

Example 8 (open position)



- E. The natural harmonic relationship can help us achieve tonal continuity and independence in pitch giving.

### Exercise 11

Review the music you normally sing for the entire Divine Liturgy. Make a list of the compositions and their printed key signatures. Find the relationship between the keys of each composition – the dominating or majority keys becomes our *root* and every other key relates to this root.

#### Example 9

*The Divine Liturgy* music by Hilko

	<u>Written key</u>	<u>Interval</u>
Great Litany	Eb major	root
First Antiphon	f minor	second
Litany	Eb major	root
Second Antiphon	f minor	second
Only Begotten Son	f minor	second

All of the music you use will not fit so nicely into such patterns. The choir master has the option of making small transpositions in order to obtain better tonal continuity.

#### Example 10

*The Divine Liturgy* music by Tchaikovsky

	<u>Written key</u>	<u>Possible Transposition</u>	<u>Interval</u>
Great Litany*	Bb major	C major	root
First Antiphon	F major	same	fourth
Litany	a minor	same	sixth
Second Antiphon	f minor	same	fourth
Only Begotten Son	Bb major	C major	root

*\*Tchaikovsky wrote the Great Litany and Only Begotten Son in C major – the edition published by the Antiochian Archdiocese contains transposed versions of these pieces.*

### F. Thinking Long Term

If we can agree that continuity between the celebrant and choir is important, then we may also be able to agree that continuity between one composition and the next is a worthwhile goal.

In selecting music for a particular service, consider making selections which have good continuity, i.e., the key relationships are close and transitions from piece to piece can be accomplished smoothly.

#### Example 11

##### Section

Section 1 – Great Litany through Entrance Hymn	All selections from Hilko
Section 2 – Troparia, Kontakia	Per liturgical calendar
Section 3 – Holy God through Gospel reading	All selections from Tchaikovsky
Section 4 – Cherubic Hymn through Anaphora	All selections from Standard Liturgy
Section 5 – Litany through Communion Hymn (Koinonikon)	All selections from Frederick Karam
Section 6 – We Have Seen through Dismissal	All selections from Frank Desby

*These are simply suggestions which may serve as a useful model to you. The underlying point, however, is that the choir director plan the service in order to achieve the best possible product.*

### Part III Intervals

F. We are now ready to reinforce the material from Part I and discuss intervals. Simply put, intervals are the naming of the relationship between tones. Back on page one we found the following example.

#### Example 12

<b>DO</b>	re	<b>MI</b>	fa	<b>SOL</b>	la	ti	<b>DO</b>
<b>(ROOT)</b>	(second)	<b>(THIRD)</b>	(fourth)	<b>(FIFTH)</b>	(sixth)	(seventh)	<b>(ROOT)</b>
<b>(C)</b>	(d)	<b>(E)</b>	(f)	<b>(G)</b>	(a)	(b)	<b>(C)</b>

As we discovered, the starting tone, *do* is also called the *root* of a triad or chord. All other interval names are derived from their distance from the *root*. Therefore, the distance, or interval, between *do* and *fa* is a fourth, and so on.

## Exercise 12

Practice singing intervals. Use *do* as the starting note, then move quickly from *do* to *sol* then *do* to *fa*, then *do* to *re*.

Take this one step further. Use *do* as the starting note, then move to *sol* and sing a major triad, changing the *sol* to *do*. Follow the same procedure for thirds and fourths.

*A great trick to learning intervals is to find a song that you know extremely well which begins on the required interval. For example, the Wedding March begins with the interval of a fourth; Twinkle, Twinkle Little Star begins with an interval of a fifth, Three Blind Mice is me, re, do, respectively, in a major key.*

## **Part IV Using a Tuning Fork**

G. Why use a tuning fork instead of a pitch pipe or an organ/keyboard to find the *root* or *do* of a piece of music? Why not?

The tuning fork has many advantages over keyboard instruments and pitch pipes, foremost being that no one but the choir master can hear it ringing out its tone. But more important than discretion is the flexibility the choir master has when using a tuning fork. Let's go back to our celebrant from Part II.

It's a bright sunny Sunday morning, the celebrant has had a good night's rest. The Church is full and he feels like a million bucks. He begins the Divine Liturgy –the choir master strikes his A440 tuning fork to discover that the celebrant is singing a half step higher this morning and his immovable *Ab* is now an *A natural* – wonder of wonders, we can sing the opening *Amen* in F major just as it is written by simply taking the celebrant's note. Our F major triad can be built around his *A* and no one but the choir master knows what has transpired. The continuity between the celebrant's invocation and the choir's response is perfect.

OR

It's a dark, dreary Sunday morning on the day after the clocks have been turned back in the fall. Everyone is late for the beginning of the Divine Liturgy and the celebrant has really had a restless night. He begins the Divine Liturgy – the choir master strikes his A440 tuning fork only to discover that the celebrant is singing a third (major) below the immovable *A* of the tuning fork instead of his usual *Ab* – wonder of wonders, we can sing the opening *Amen* in F major just as it is written by simply taking the celebrant's note. Our F major triad can be built up from his starting tone and no one but the choir master knows what has transpired. The continuity between the celebrant's invocation and the choir's response is again perfect.

OR

It's a bright sunny Sunday morning, the celebrant has had a good night's rest. The Church is full and he feels like a million bucks. He begins the Divine Liturgy – the celebrant is really in good shape this morning and is singing a half step higher than usual – not realizing anything is different, the choir master blows the trusty pitch pipe – *Ab*, of course, to accommodate what we all know is the celebrant's favorite note – oops! Everyone in the choir loft has now heard the dissonance between the *A* the celebrant is singing today and the *Ab* just sounded on the pitch pipe.

Any wonder why the choir can't get their starting pitch?

*At this point, you may wish to acquire a tuning fork at your neighborhood music store. Either an A440 or a C523.25 will be adequate.*

### Exercise 13

Start using the tuning fork to find the starting tone for each of the previous exercises, numbers 1 to 12, and start exploring the freedom and control you can acquire when you are relating your tuning fork starting pitch to other tones around it. Sure, you'll make mistakes, and it can be terribly frustrating at times. Please remember that your confidence and self reliance can be developed only through practice and experience.

### Exercise 14

We are now ready to build triads around our tuning fork's starting tone.

#### ***IN SEARCH OF – F MAJOR***

If you have an *A440*, sound and sing the starting *A*. Build an F major triad around the *A* by using the *A* as the first tone of *Three Blind Mice*. *Three* is *mi*, *Blind* is *re* and *Mice* is *do* in F major – voila! F major!

#### ***IN SEARCH OF – C MAJOR***

If you have an *A440*, sound and sing the starting *A*. Find F major as we did above, then sing up *do*, *mi*, *sol*. Now, the *sol* of F major is *C* – change this *sol* to *do* and sing *do*, *mi*, *sol* – voila! C major!

#### ***IN SEARCH OF - d minor***

If you have an *A440*, sound and sing the starting *A*. Sing *sol*, *mi*, *do* in a minor key – Eureka! d minor!

Use the static pitch of the tuning fork as a center to relate all other intervals from that tone. It may help to visualize a keyboard or use a familiar song to trigger your musical memory - use whatever works for you. Remember the beauty of having this kind of flexibility is that you determine whether you are going to use the tuning fork's *A* or *C* today, or whether you are going to adjust it up or down according to the conditions of the moment.

**Guide to Intervals:** This practice chart lists the most common intervals from *A* to *C*.

Setting F Major from 'A440'

Set the A as the third and sing "Three Blind Mice"

root fifth third root fifth root

Setting D Major from 'A440'

Set the A as *sol* and sing *sol, mi, do*

root fifth third root fifth third root

Setting d minor from 'A440'

Set the A as *sol* and sing *sol, mi, do* in a minor tone

root fifth third root fifth third root

Setting C Major from 'A440'

Set the A as the third and sing "Three Blind Mice"

Set root to 'F', find the fifth 'C', and lower fifth by an octave

root third fifth root

Setting Bb Major from 'A440'

Set the 'A' as *ti* in Bb Major and sing up to Bb

root fifth third root

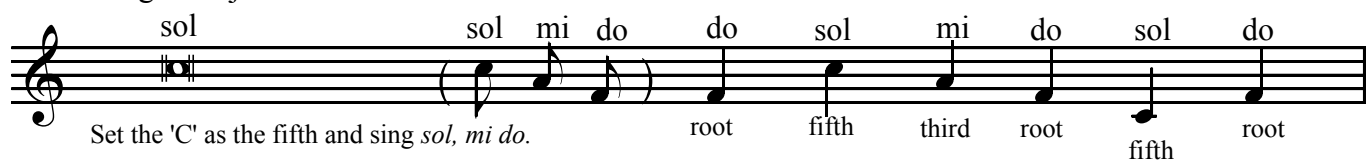
Setting e minor from 'A440'

Set 'A' as *do* and sing *do, re* then change the *re* to *sol* and sing a minor third down

fifth third root third root

## Guide to Intervals - cont'd

### Setting F Major from 'C523.25'

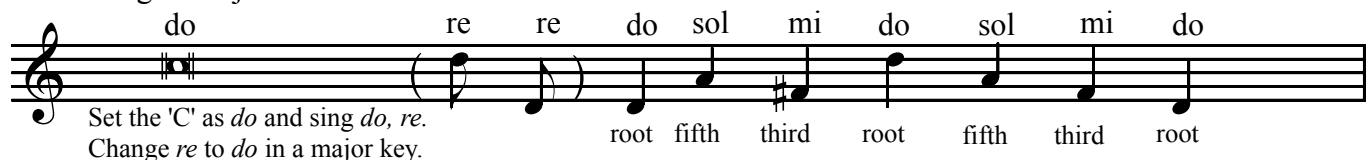


sol (sol mi do) do sol mi do sol do

Set the 'C' as the fifth and sing *sol, mi do*.

root fifth third root fifth root

### Setting D Major from 'C523.25'

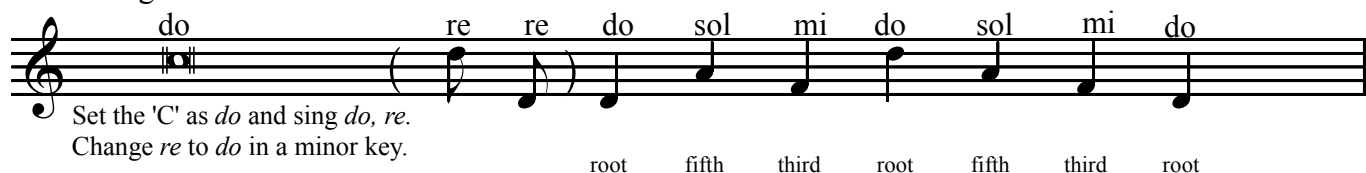


do (re re) do sol mi do sol mi do

Set the 'C' as *do* and sing *do, re*.  
Change *re* to *do* in a major key.

root fifth third root fifth third root

### Setting D minor from 'C523.25'



do (re re) do sol mi do sol mi do

Set the 'C' as *do* and sing *do, re*.  
Change *re* to *do* in a minor key.

root fifth third root fifth third root

### Setting C Major from 'C523.25'

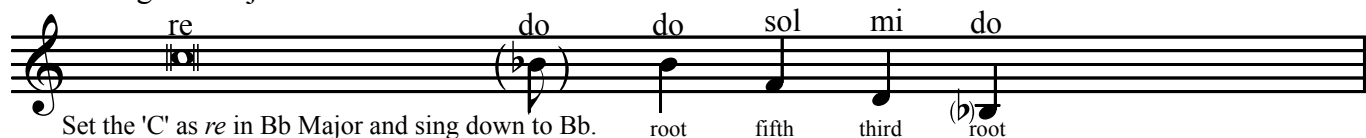


do (do sol mi) do do mi sol do

Set the 'C' as *do* and sing down a major triad, open position.

root third fifth root

### Setting Bb Major from 'C523.25'



re (do do) sol mi do

Set the 'C' as *re* in Bb Major and sing down to Bb.

root fifth third root

### Setting E minor from 'C523.25'



do (mi do) sol mi do sol mi do mi do

Set the 'C' as *do* and sing *do, mi* in C Major.  
Change the *mi* to *do* and sing a minor triad down.

fifth third root third root

## Part V – Basic Concepts

Regardless of the method you use to transmit the starting pitch of a composition to your choir, there are a few basic concepts that apply in every instance.

1. ***Be heard.*** Sing or hum the starting note in such a way that the choir can hear it.
2. ***Be discrete.*** The rest of the congregation either should not hear the starting pitch at all, or it is given at such a volume level that the giving of the pitch is very discrete.
3. ***Be consistent.*** Give the pitch in the same way every time. Even to the extent of singing the key structure in the same order – tenor, bass, alto, soprano – base, tenor, alto, soprano – soprano, alto, tenor, bass – which ever is most comfortable for you.
4. ***Be specific.*** If you are transmitting the pitch to a particular section, make sure that section knows you are giving the pitch to them.
5. ***Be prepared.*** If you are going to transpose keys for the sake of continuity, make sure you have thought out your options before getting into the service.

### *Some Final Thoughts*

*Most of the time, the choir cannot get their starting pitch because the director has made some sort of error.*

*Usually these errors are so simple that a little forethought could have avoided the problem.*

*Such problems usually fall into one of the above five categories.*

*Take the time to rethink your method of pitch giving.*

*Ask your choir what works for them – you may be surprised at the answer.*