

# **REHEARSAL RESOURCE**

**FOR BAND**

## **CHAPTER 2**

# **FUNDAMENTALS OF MUSIC THEORY**

## CHAPTER 2 - Fundamentals of Music Theory

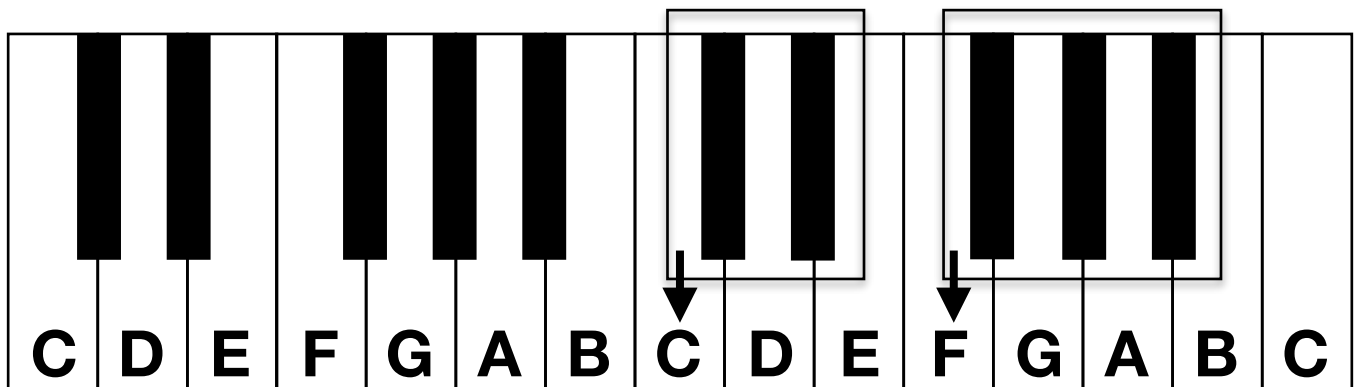
### MUSICAL ALPHABET

Music notes are named using (and re-using) the first seven letters of the alphabet (A, B, C, D, E, F, G). We refer to this as the **MUSICAL ALPHABET**. Understanding music theory (especially scales) begins with knowing the musical alphabet ascending and descending.

A B C D E F G A G F E D C B A  
 B C D E F G A B A G F E D C B  
 C D E F G A B C B A G F E D C  
 D E F G A B C D C B A G F E D  
 E F G A B C D E D C B A G F E  
 F G A B C D E F E D C B A G F  
 G A B C D E F G F E D C B A G

### THE KEYBOARD - WHITE KEYS

Most instruments do not allow us to “see” the musical alphabet, but the keyboard (piano) is an exception.



**MAESTRO TIP:** It is easy to find the notes on the keyboard because of the groupings of black keys. “C” is the note just below the grouping of two black keys. “F” is the note just below the grouping of three black keys.

## ACCIDENTALS

An **ACCIDENTAL** is a sign placed before a note that temporarily alters its pitch. There are five different types of accidentals.

#

**SHARP** - raises the pitch of a note one half step

b

**FLAT** - lowers the pitch of a note one half step

♮

**NATURAL** - Cancels the effect of a sharp or flat

x

**DOUBLE SHARP** - raises the pitch of a note two half steps or one whole step

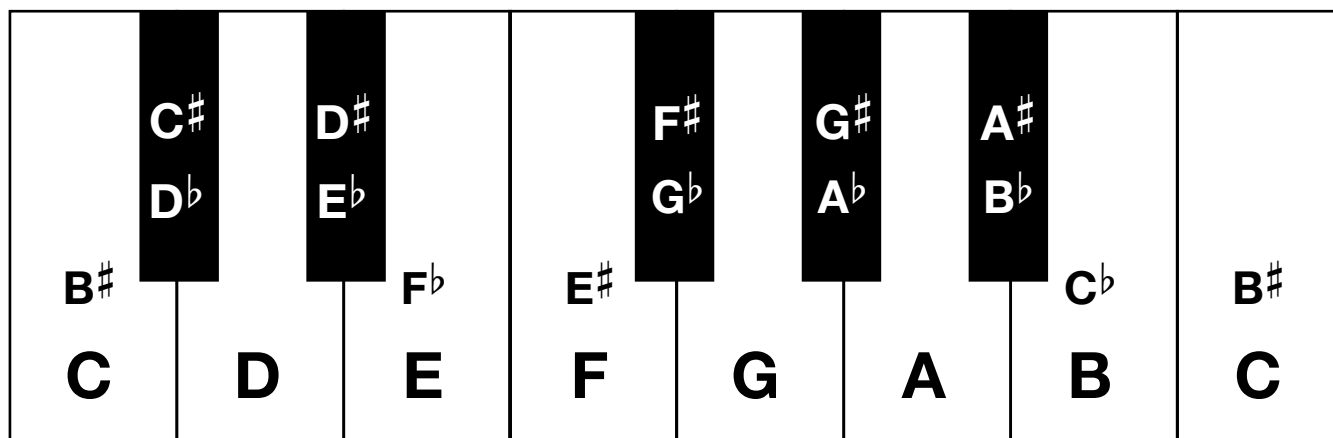
bb

**DOUBLE FLAT** - lowers the pitch of a note two half steps or one whole step

**MAESTRO TIP:** An accidental appearing in a measure affects every note of the same pitch in the measure that comes after the accidental. A bar line cancels the accidental unless the note is tied across the barline to the new measure.

## THE KEYBOARD - BLACK KEYS

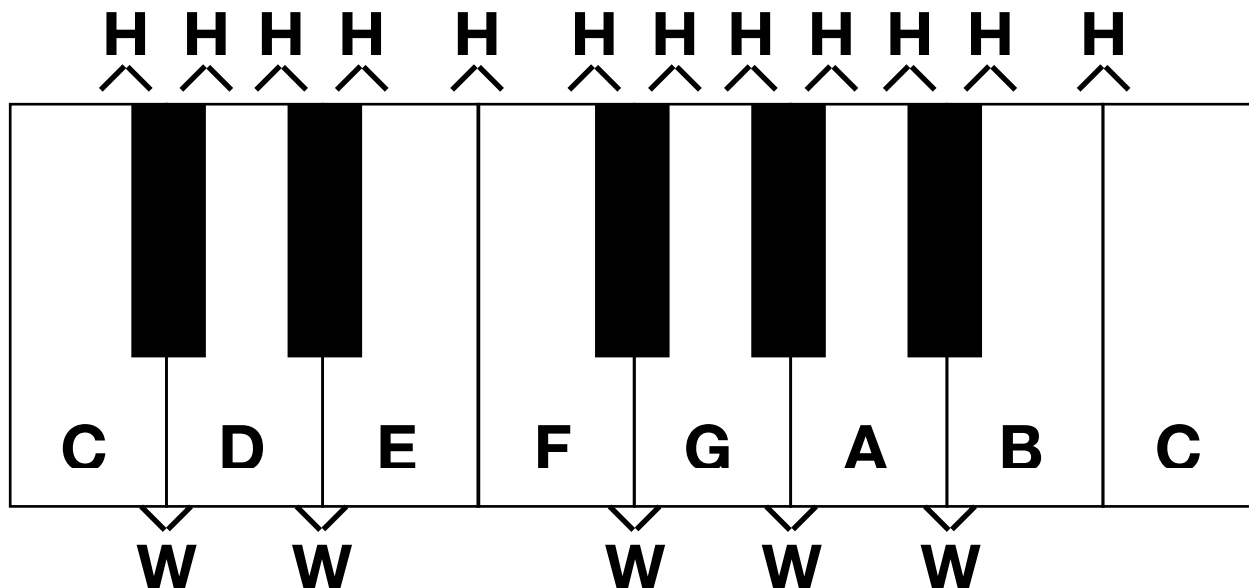
There are more keys on the keyboard than just the “white” keys. The “black” keys allow us to fill in all of the notes possible between two notes of the same name (i.e. C to C). We use accidentals to identify these notes.



Notice that each “black” key (and “white” key) has more than one name. Two notes that sound the same, but are written differently are called **ENHARMONICS**.

### WHOLE STEPS & HALF STEPS

The distance from any key on the keyboard to the very next key (above or below - black or white) is referred to as a **HALF STEP (H)**. The distance from any key on the keyboard to two keys above or below is referred to as a **WHOLE STEP (W)**.

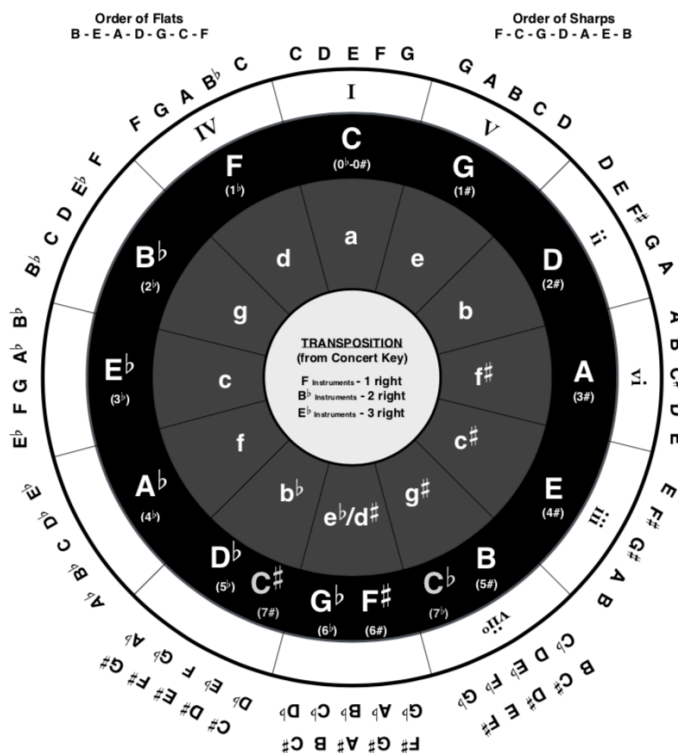


### CIRCLE OF KEYS

The Circle of Keys, also known as the Circle of 5ths or the Circle of 4ths, is a “tool” or “guide” that helps us understand key signatures, transposition, scales, chord functions, and relationships between keys.

This Circle of Keys shows...

- Order of Sharps and Flats
- Number of Sharps and Flats
- Major Keys
- Minor Keys
- Instrument Transposition
- Chord Function
- “Mini” Major (5-Note Scales)
- Major Scales
- Enharmonic Scales
- Tonic Arpeggios



### KEY SIGNATURES

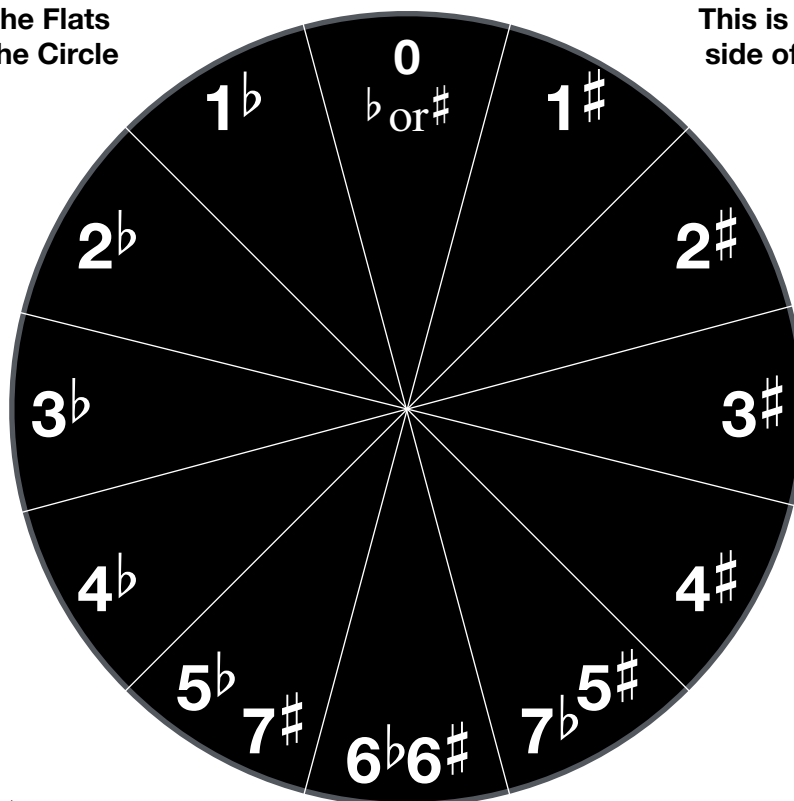
A **KEY SIGNATURE** tells us which notes in a piece of music to play sharp, flat or natural. A single key signature can have 1, 2, 3, 4, 5, 6, or 7 sharps; or 1, 2, 3, 4, 5, 6, or 7 flats; or no sharps or flats, for a total of fifteen different key signatures. Every key signature corresponds to a major scale (tonality) and a minor scale (tonality).

### NUMBER OF #'s & b's

The **KEY (SIGNATURE)** that has 0 sharps and 0 flats (Key of C) goes at the top of the circle. The flat keys (signatures) move counter-clockwise around the circle, adding a flat for each new key. The sharp keys (signatures) move clockwise around the circle, adding a sharp for each new key.

This is the Flats side of the Circle

This is the Sharps side of the Circle



### ORDER OF #'s & b's

Sharps and Flats in the key signature **ALWAYS** appear in a specific order.

When you add b's to a key signature, add them in this order.



When you add #'s to a key signature, add them in this order.

KEY SIGNATURES - MAJOR

1<sup>b</sup>  
KEY OF  
**F**

0<sup>b</sup>-0<sup>#</sup>  
KEY OF  
**C**

1<sup>#</sup>  
KEY OF  
**G**

2<sup>b</sup>  
KEY OF  
**B<sup>b</sup>**

2<sup>#</sup>  
KEY OF  
**D**

3<sup>b</sup>  
KEY OF  
**E<sup>b</sup>**

Notice that the accidentals in the key signature **ALWAYS** follows the order of #’s and b’s.

3<sup>#</sup>  
KEY OF  
**A**

4<sup>b</sup>  
KEY OF  
**A<sup>b</sup>**

Order of Flats  
**B - E - A - D - G - C - F**

4<sup>#</sup>  
KEY OF  
**E**

5<sup>b</sup>  
KEY OF  
**D<sup>b</sup>**

Order of Sharps  
**F - C - G - D - A - E - B**

5<sup>#</sup>  
KEY OF  
**B**

6<sup>b</sup>  
KEY OF  
**G<sup>b</sup>**

6<sup>#</sup>  
KEY OF  
**F<sup>#</sup>**

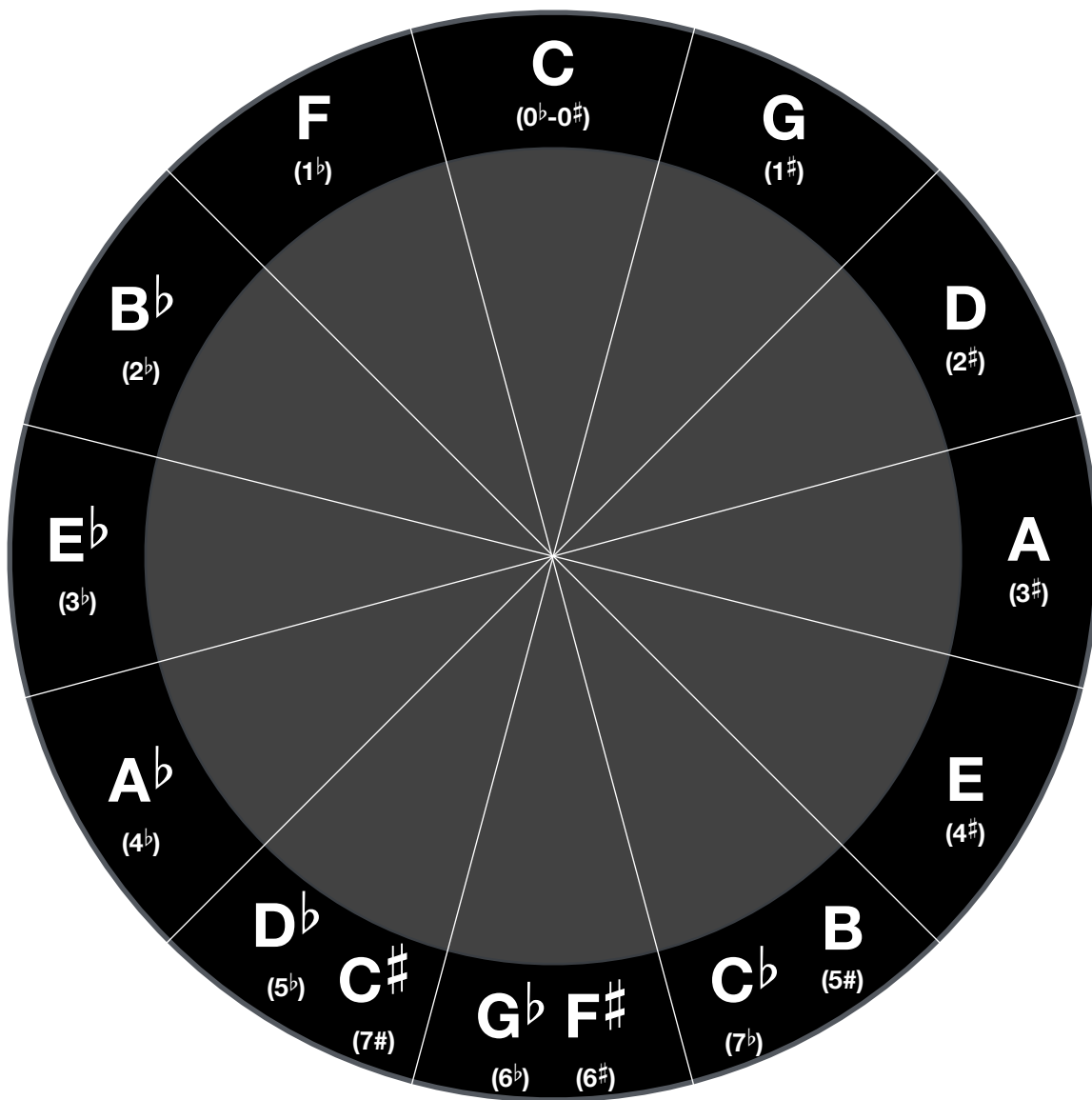
7<sup>b</sup>  
KEY OF  
**C<sup>b</sup>**

7<sup>#</sup>  
KEY OF  
**C<sup>#</sup>**

Notice how the name of the key  
and the number of #’s and b’s  
line up around the circle.

Order of Flats  
B - E - A - D - G - C - F

Order of Sharps  
F - C - G - D - A - E - B



## TRANSPOSITION

**TRANSPOSITION** is the process of playing or writing music in a different key from the “Concert” key. This is often done to make the music more playable by adjusting the range or the key. This is an important concept in band, because (unlike the orchestra where all instruments are in “concert” key) band instruments are keyed differently to assist with intonation, timbre, and covering the full range of notes required in band music.

Here is a list of the common band and orchestra instruments and their “Key”.

	KEY OF <b>CONCERT</b> “C”	KEY OF <b>F</b>	KEY OF <b>B<sup>b</sup></b>	KEY OF <b>E<sup>b</sup></b>
<b>WOODWINDS</b>	Piccolo Flute Oboe Bassoon Contrabassoon	English Horn	Clarinet Bass Clarinet Tenor Saxophone Contra-Bass Clarinet	Clarinet Alto Saxophone Baritone Saxophone Contra-Alto Clarinet
<b>BRASS</b>	Trombone Baritone (BC) Euphonium Tuba	French Horn	Trumpet Baritone (TC)	
<b>PERCUSSION</b>	All Mallet Instruments Timpani			
<b>STRINGS</b>	Violin Viola Cello Bass			

Directors often refer to notes in “Concert” pitch. This is referring to the pitch of the notes without transposing. For instance, “Let’s play the Concert B<sup>b</sup> scale.” If you play a transposing instrument (Non-Concert Key), you will need to make an adjustment in your head so that you are playing the correct notes/in the correct key. Now that you are familiar with the Circle of Keys, it is easy to determine your notes/key... just follow the diagram below.

**For example:**

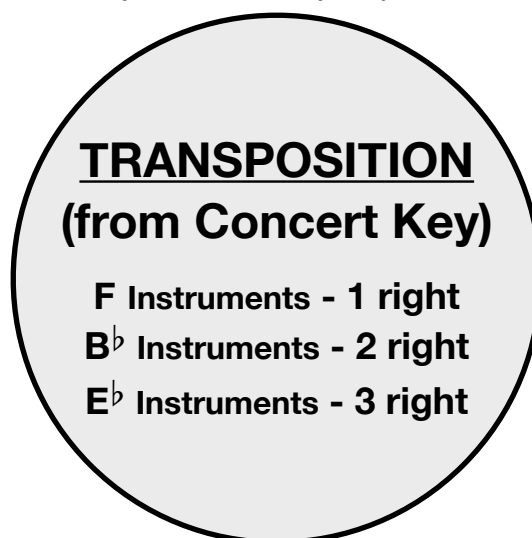
If you play trumpet. Trumpet (Key of B<sup>b</sup>) is a transposing instrument.

In order to play the Concert F scale... you must transpose...

B<sup>b</sup> Instruments need to go 2 spaces to the right around the Circle of Keys.

Start on F... One space takes you to C... one more space takes you to G.

You will play your G scale!





## INSTRUMENT TRANSPOSITION CHART

WOODWINDS	BRASS	PERCUSSION	STRINGS	INTERVAL OF TRANSPOSITION	
		Orchestra Bells		up 2 Octaves	higher than written
Piccolo		Xylophone		up 1 Octave	
E <sup>b</sup> Clarinet				up minor 3rd	
Flute Oboe Bassoon	Trombone Euphonium Tuba	Marimba Vibraphone Chimes Timpani	Violin Viola Cello	NON-TRANSPOSING	
B <sup>b</sup> Clarinet B <sup>b</sup> Soprano Saxophone	B <sup>b</sup> Trumpet			down major 2nd	lower than written
A Clarinet				down minor 3rd	
English Horn	French Horn			down perfect 5th	
E <sup>b</sup> Alto Clarinet E <sup>b</sup> Alto Saxophone				down major 6th	
Contrabassoon			String Bass	down 1 octave	
B <sup>b</sup> Bass Clarinet B <sup>b</sup> Tenor Saxophone	Baritone (TC)			down 1 octave + major 2nd	
EE <sup>b</sup> Contra-Alto Clarinet E <sup>b</sup> Baritone Saxophone				down 1 octave + major 6th	
BB <sup>b</sup> Contra-Bass Clarinet				down 2 octaves + major 2nd	

**MAESTRO TIP:** Two different ways of remembering transposition that might help you keep everything straight.

- 1) I sound my (instrument) name when I play “C”.  
When the instrument you are holding plays “C” it defines the key of the instrument.
- 2) Instrument in your hand to the instrument on the page.  
If you reference the key of the instrument you are holding to the key of the instrument you are playing it defines the interval of your transposition.

## SCALES

A **SCALE** (from the Italian: *scala*, meaning ladder) is an organized sequence of pitches in ascending or descending order. Scales provide the tonal building blocks upon which composers construct melodies and harmonies. All scales are constructed using a sequence of Whole Steps (W) and Half Steps (H).

## CHROMATIC SCALE

The **CHROMATIC SCALE** is constructed entirely of half steps and contains all twelve tones within the octave. Think of it like this... If we play all of the notes on the keyboard between two notes of the same name, we are performing the Chromatic Scale. There is only one Chromatic Scale in music, but we can begin this scale on any note around the Circle of Keys. Remember that each “black” key (and “white” key) on the keyboard has more than one name. We use #’s (raising the pitch) when ascending (going up) and we use b’s (lowering the pitch) when descending (going down).

**Ascending (use #’s)**                      C C# D D# E F F# G G# A A# B C

**Descending (use b’s)**                      C B B<sup>b</sup> A A<sup>b</sup> G G<sup>b</sup> F E E<sup>b</sup> D D<sup>b</sup> C



## “MINI” MAJOR SCALE - (5-NOTE) MAJOR SCALE

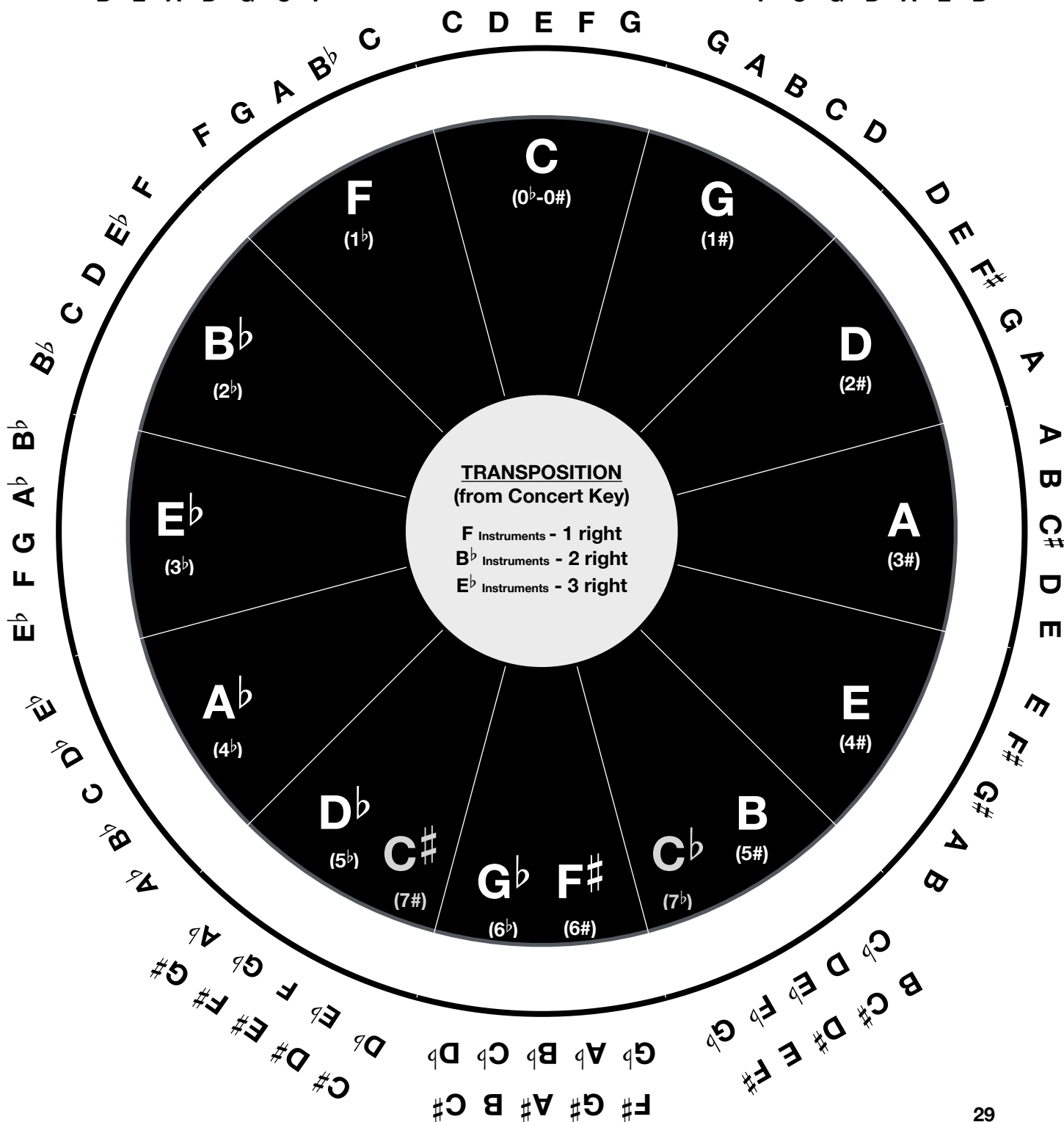
The “**MINI**” **MAJOR SCALE** is constructed using the first 5 notes of the major scale.

1. Begin by selecting a starting pitch. (Scales can be built on any pitch around the circle of keys.)  
**EXAMPLE:** Starting pitch = B<sup>b</sup>
2. Using the Musical Alphabet, list the first five alphabet letters (in order), starting with your selected pitch.  
**EXAMPLE:** B<sup>(b)</sup> - C - D - E - F
3. Determine the number of sharps or flats in the key by locating your starting pitch on the Circle of Keys.  
**EXAMPLE:** Starting pitch = B<sup>b</sup>... Key of B<sup>b</sup> has two flats (2<sup>b</sup>'s).
4. Using the Order of Sharps and Flats, determine which notes are sharp/flat in the key.  
**EXAMPLE:** Key of B<sup>b</sup> has two flats (2<sup>b</sup>'s), so use the order of flats...  
B - E - A - D - G - C - F    The first two flats in the order are B<sup>b</sup> and E<sup>b</sup>.
5. The “Mini” Major Scale is B<sup>b</sup> - C - D - E<sup>b</sup> - F

Notice how the “Mini” Major Scales align with the Major Key.  
The first note of the scale is always the name of the key.

Order of Flats  
B - E - A - D - G - C - F

Order of Sharps  
F - C - G - D - A - E - B

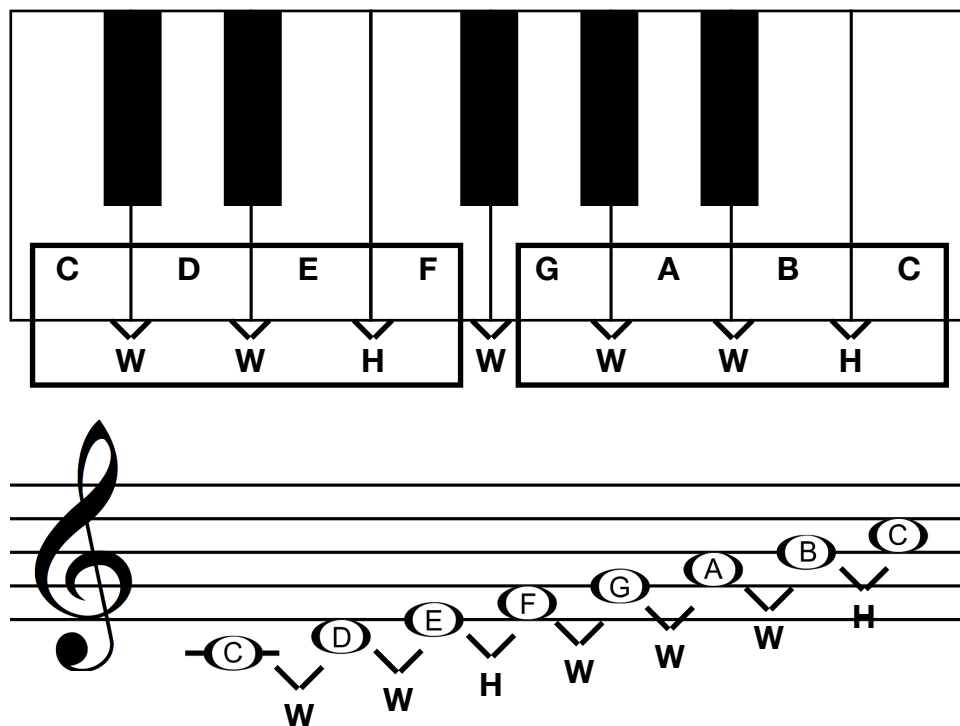


## MAJOR SCALE

The **MAJOR SCALE** is constructed using a specific sequence of Whole Steps (W) and Half Steps (H). The sequence (which can begin on any pitch) follows this pattern...



The major scale is divided into two 4-note groupings known as tetrachords (*tetra* meaning four) which follow the W - W - H pattern. The two tetrachords are separated by a whole step.



The **MAJOR SCALE** can also be constructed by combining two consecutive “Mini” Major Scales.

**EXAMPLE:** In the Key of C...

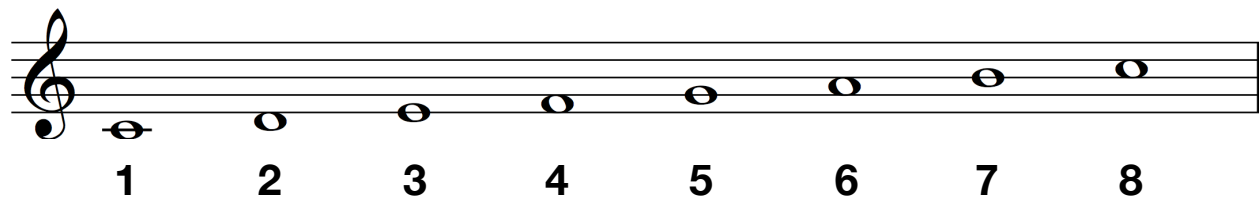
- The C “mini” major scale is C - D - E - F - G.
- The next scale (clockwise) around the Circle of Keys is the Key of G.
- The G “mini” major scale is G - A - B - C - D.
- Combining these two scales together = C - D - E - F - [G] - A - B - C - **(D)**  
[G] is the last note of the 1st “mini” major scale and the first note of the second “mini” major scale. **(D)** is Scale Degree 9 and is usually left off when playing the major scale, but is useful when we discuss chord “extensions” and jazz scales.

**MAJOR SCALES in all 15 Keys**

<b>C (0)</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>[G]</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>(D)</b>
<b>G (1#)</b>	<b>G</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>[D]</b>	<b>E</b>	<b>F#</b>	<b>G</b>	<b>(A)</b>
<b>F (1b)</b>	<b>F</b>	<b>G</b>	<b>A</b>	<b>B<sup>b</sup></b>	<b>[C]</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>(G)</b>
<b>D (2#)</b>	<b>D</b>	<b>E</b>	<b>F#</b>	<b>G</b>	<b>[A]</b>	<b>B</b>	<b>C#</b>	<b>D</b>	<b>(E)</b>
<b>B<sup>b</sup> (2b)</b>	<b>B<sup>b</sup></b>	<b>C</b>	<b>D</b>	<b>E<sup>b</sup></b>	<b>[F]</b>	<b>G</b>	<b>A</b>	<b>B<sup>b</sup></b>	<b>(C)</b>
<b>A (3#)</b>	<b>A</b>	<b>B</b>	<b>C#</b>	<b>D</b>	<b>[E]</b>	<b>F#</b>	<b>G#</b>	<b>A</b>	<b>(B)</b>
<b>E<sup>b</sup> (3b)</b>	<b>E<sup>b</sup></b>	<b>F</b>	<b>G</b>	<b>A<sup>b</sup></b>	<b>[B<sup>b</sup>]</b>	<b>C</b>	<b>D</b>	<b>E<sup>b</sup></b>	<b>(F)</b>
<b>E (4#)</b>	<b>E</b>	<b>F#</b>	<b>G#</b>	<b>A</b>	<b>[B]</b>	<b>C#</b>	<b>D#</b>	<b>E</b>	<b>(F#)</b>
<b>A<sup>b</sup> (4b)</b>	<b>A<sup>b</sup></b>	<b>B<sup>b</sup></b>	<b>C</b>	<b>D<sup>b</sup></b>	<b>[E<sup>b</sup>]</b>	<b>F</b>	<b>G</b>	<b>A<sup>b</sup></b>	<b>(B<sup>b</sup>)</b>
<b>B (5#)</b>	<b>B</b>	<b>C#</b>	<b>D#</b>	<b>E</b>	<b>[F#]</b>	<b>G#</b>	<b>A#</b>	<b>B</b>	<b>(C#)</b>
<b>D<sup>b</sup> (5b)</b>	<b>D<sup>b</sup></b>	<b>E<sup>b</sup></b>	<b>F</b>	<b>G<sup>b</sup></b>	<b>[A<sup>b</sup>]</b>	<b>B<sup>b</sup></b>	<b>C</b>	<b>D<sup>b</sup></b>	<b>(E<sup>b</sup>)</b>
<b>F# (6#)</b>	<b>F#</b>	<b>G#</b>	<b>A#</b>	<b>B</b>	<b>[C#]</b>	<b>D#</b>	<b>E#</b>	<b>F#</b>	<b>(G#)</b>
<b>G<sup>b</sup> (6b)</b>	<b>G<sup>b</sup></b>	<b>A<sup>b</sup></b>	<b>B<sup>b</sup></b>	<b>C<sup>b</sup></b>	<b>[D<sup>b</sup>]</b>	<b>E<sup>b</sup></b>	<b>F</b>	<b>G<sup>b</sup></b>	<b>(A<sup>b</sup>)</b>
<b>C# (7#)</b>	<b>C#</b>	<b>D#</b>	<b>E#</b>	<b>F#</b>	<b>[G#]</b>	<b>A#</b>	<b>B#</b>	<b>C#</b>	<b>(D#)</b>
<b>C<sup>b</sup> (7b)</b>	<b>C<sup>b</sup></b>	<b>D<sup>b</sup></b>	<b>E<sup>b</sup></b>	<b>F<sup>b</sup></b>	<b>[G<sup>b</sup>]</b>	<b>A<sup>b</sup></b>	<b>B<sup>b</sup></b>	<b>C<sup>b</sup></b>	<b>(D<sup>b</sup>)</b>

**SCALE DEGREES**

Every note in a scale can be identified with a number. This helps identify the role that each note plays in the scale, as well as its role in melody and harmony.



Scale degrees can be extended beyond 8 and are most often used to identify chord "extensions" used in jazz.

### “MINI” MINOR SCALE - (5-NOTE) MINOR SCALE

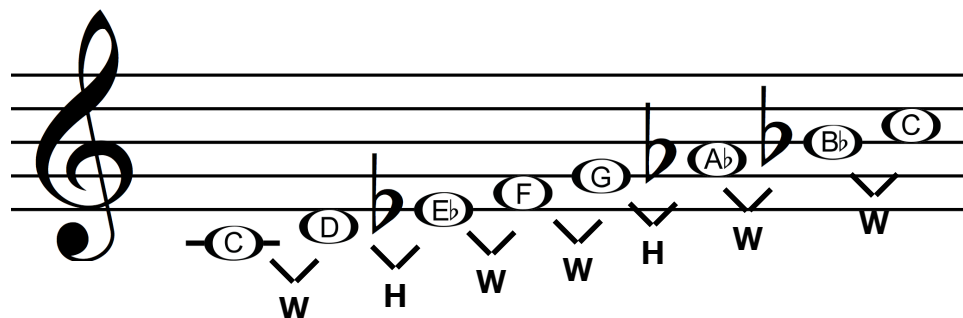
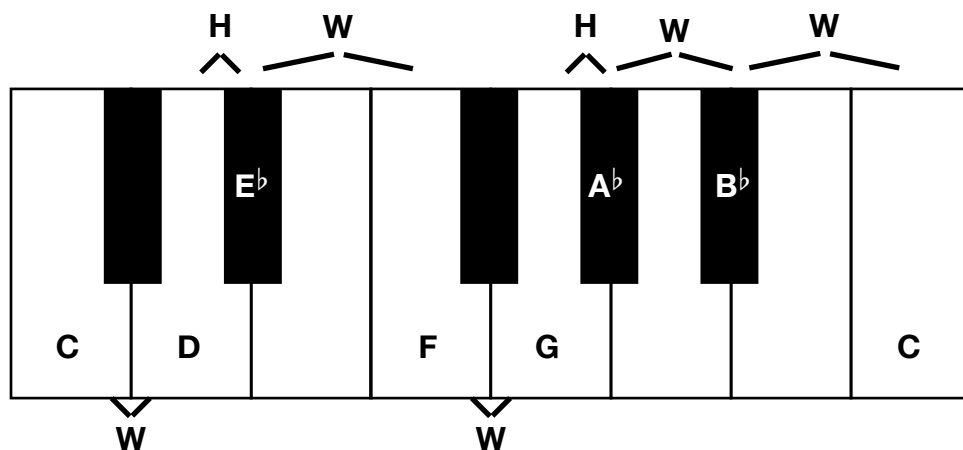
The “MINI” MINOR SCALE is constructed using the first 5 notes of the minor scale.

1. Begin by selecting any “Mini” Major Scale.  
**EXAMPLE:** “Mini” Major Scale = B<sup>b</sup> - C - D - E<sup>b</sup> - F
2. Lower scale degree 3 one half step (H)  
**EXAMPLE:** Scale degree 3 = D... lowered one half step = D<sup>b</sup>
3. The “Mini” Minor Scale is B<sup>b</sup> - C - D<sup>b</sup> - E<sup>b</sup> - F

### MINOR SCALE

The basic form of the **MINOR SCALE** (known as the Natural Minor Scale) is constructed using a specific sequence of Whole Steps (W) and Half Steps (H). The sequence (which can begin on any pitch) follows this pattern...

**W      H      W      W      H      W      W**



## MINOR SCALE (3 FORMS)

There are three different forms of the minor scale - **NATURAL** (also known as **PURE** minor), **HARMONIC**, and **MELODIC**. All minor scales have one thing in common... the third scale degree is lowered one half step from the corresponding major scale.

### NATURAL (PURE) MINOR SCALE

The natural minor scale is constructed by using any major scale and lowering scale degrees 3, 6, and 7 (one half step).

**C Major** C - D - E - F - G - A - B - C

**C Natural (Pure) Minor** C - D - E<sup>b</sup> - F - G - A<sup>b</sup> - B<sup>b</sup> - C  
(W - H - W - W - H - W - W)

### HARMONIC MINOR SCALE

The harmonic minor scale is constructed by using any major scale and lowering scale degree 3 and 6 (one half step).

**C Major** C - D - E - F - G - A - B - C

**C Harmonic Minor** C - D - E<sup>b</sup> - F - G - A<sup>b</sup> - B - C  
(W - H - W - W - H - W - H)

### MELODIC MINOR SCALE

The melodic minor scale is unique in that the notes are different ascending and descending. This scale is constructed by using any major scale and lowering scale degree 3 (one half step) ascending and using the natural (pure) minor scale descending.

**C Major** C - D - E - F - G - A - B - C

**C Melodic Minor** C - D - E<sup>b</sup> - F - G - A - B - C - B<sup>b</sup> - A<sup>b</sup> - G - F - E<sup>b</sup> - D - C  
(W - H - W - W - W - W - H)

**PARALLEL MINOR vs. RELATIVE MINOR**

There are two different relationships between Major and Minor scales - **PARALLEL** and **RELATIVE**. These relationships do not change the construction of the minor scale, just the understanding of how it is related to the major.

**PARALLEL MAJOR - MINOR**

In a Parallel relationship... the scales share the **same starting pitch**, but have **different key signatures**.

**EXAMPLE:**

**C Major** (C - D - E - F - G - A - B - C) has a **Parallel** relationship with...

**C Natural Minor** (C - D - E<sup>b</sup> - F - G - A<sup>b</sup> - B<sup>b</sup> - C)

**RELATIVE MAJOR - MINOR**

In a Relative relationship... the scales share the **same key signature**, but have **different starting pitches**.

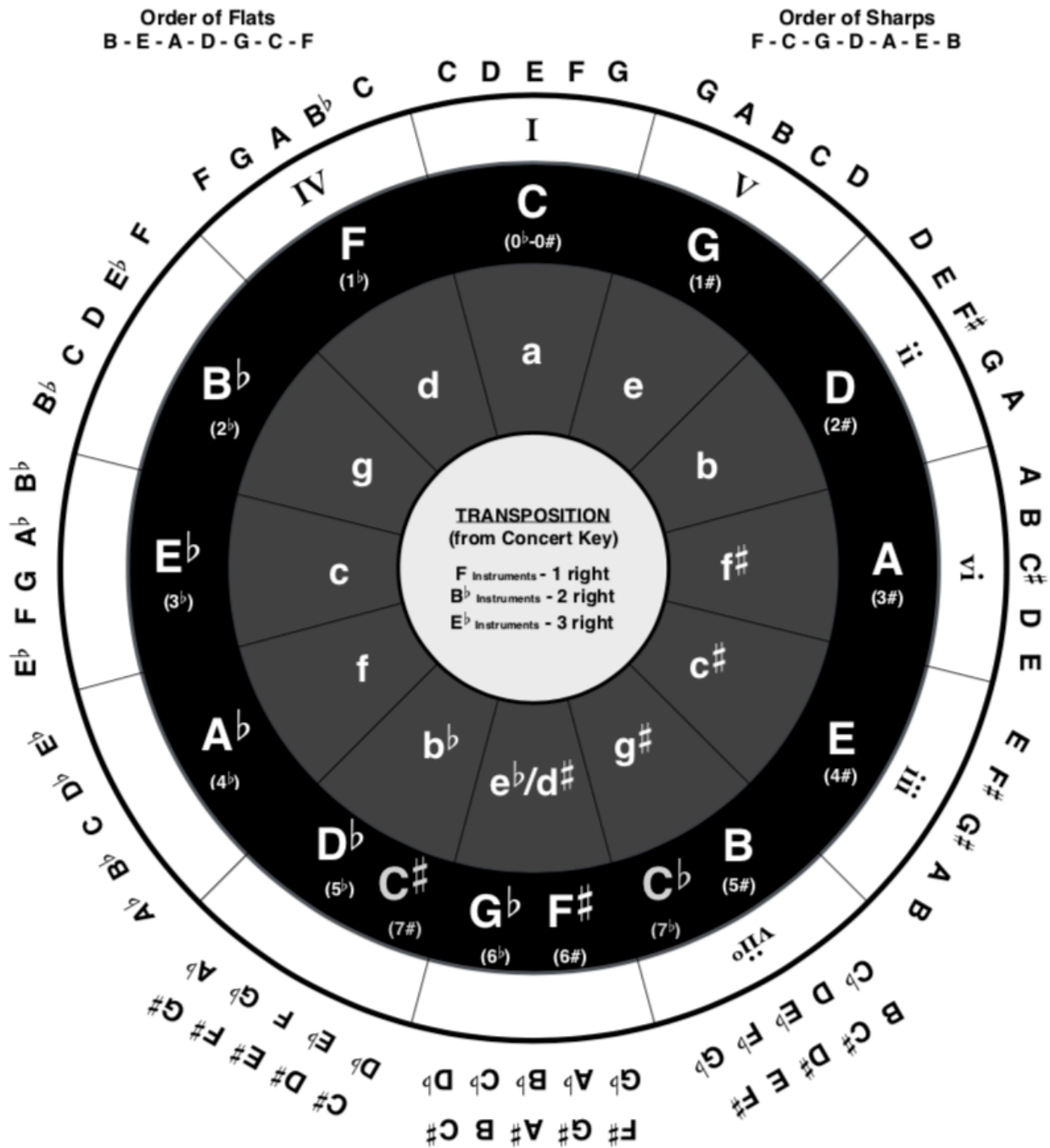
**EXAMPLE:**

**C Major** (C - D - E - F - G - A - B - C) has a **Relative** relationship with...

**A Natural (Pure) Minor** (A - B - C - D - E - F - G - A)



Notice how the Circle of Keys identifies the  
RELATIVE MAJOR - MINOR  
relationship



KEY SIGNATURES - MINOR

1<sup>b</sup>  
KEY OF  
**d**

0<sup>b</sup>-0<sup>#</sup>  
KEY OF  
**a**

1<sup>#</sup>  
KEY OF  
**e**

2<sup>b</sup>  
KEY OF  
**g**

2<sup>#</sup>  
KEY OF  
**b**

3<sup>b</sup>  
KEY OF  
**c**

Notice that the accidentals in the key signature **ALWAYS** follows the order of #’s and b’s.

3<sup>#</sup>  
KEY OF  
**f#**

4<sup>b</sup>  
KEY OF  
**f**

**Order of Flats**  
B - E - A - D - G - C - F

4<sup>#</sup>  
KEY OF  
**c#**

5<sup>b</sup>  
KEY OF  
**b**

**Order of Sharps**  
F - C - G - D - A - E - B

5<sup>#</sup>  
KEY OF  
**g#**

6<sup>b</sup>  
KEY OF  
**e**

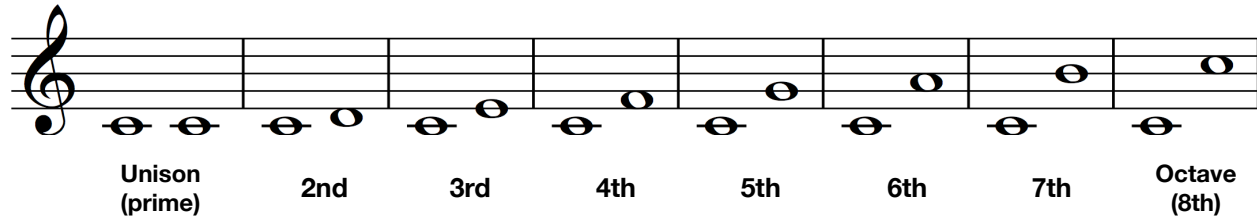
6<sup>#</sup>  
KEY OF  
**d#**

7<sup>b</sup>  
KEY OF  
**a**

7<sup>#</sup>  
KEY OF  
**a#**

## INTERVALS

An **INTERVAL** is the distance in pitch between two notes. An interval is always counted from the bottom up (counting lines and spaces), with the bottom note counted as 1. Intervals are named based on the number of the upper note.

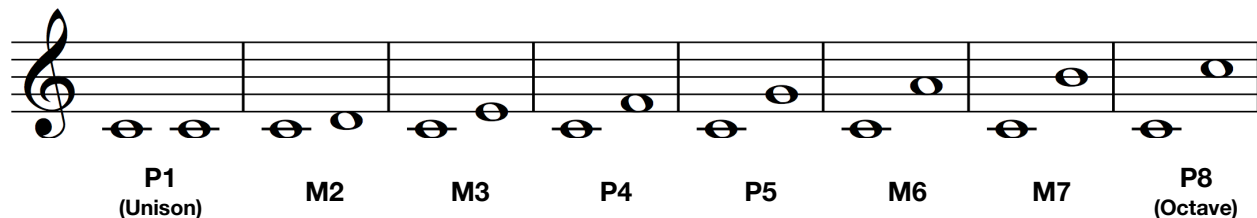


Intervals can be **MELODIC** (one note played after the other) or **HARMONIC** (notes played simultaneously).



## DIATONIC INTERVALS

When the tonic and the upper note of an interval are from the same Scale (Key), it is called a **DIATONIC INTERVAL**. Diatonic intervals are either **Perfect (P)** or **Major (M)**.



## CHROMATIC INTERVALS

When the tonic and the upper note of an interval are from a different Scale (Key), it is called a **CHROMATIC INTERVAL**. Chromatic intervals are either **Minor (m)**, **Augmented (A)**, or **Diminished (d)**.

To determine the quality of an interval

1. Identify the bottom note.
2. Identify the top note.
3. If the top note is in the same scale as the bottom note, the interval is either Perfect (P) or Major (M).
  - Perfect intervals include:** Unison (P1), 4th (P4), 5th (P5), and Octaves (P8)
  - Major Intervals include:** 2nd (M2), 3rd (M3), 6th (M6), and 7th (M7)
4. If the top note is **NOT** in the same scale as the bottom note, the interval is either Minor (m), Augmented (A), or Diminished (d).

A note **1/2 step above** a **PERFECT** interval is called an **AUGMENTED** interval.

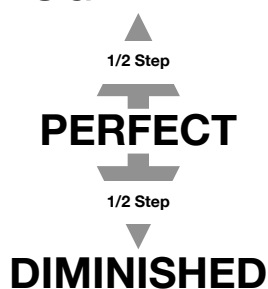
A note **1/2 step below** a **PERFECT** interval is call a **DIMINISHED** interval.

A note **1/2 step above** a **MAJOR** interval is call an **AUGMENTED** interval.

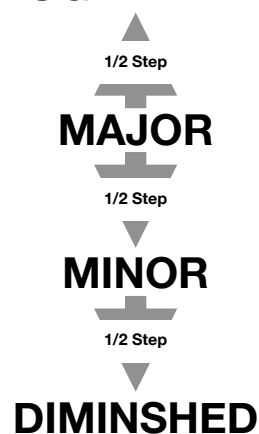
A note **1/2 step below** a **MAJOR** interval is call an **MINOR** interval.

A note **1/2 step below** a **MINOR** interval is call a **DIMINISHED** interval.

### AUGMENTED



### AUGMENTED



## INVERTED INTERVALS and THE “RULE OF NINE”

Inverted intervals (when you (swap) move the lower note an octave above the top note) always add up to equal nine.

a **2nd** inverts to become a **7th**  
 a **3rd** inverts to become a **6th**  
 a **4th** inverts to become a **5th**  
 a **5th** inverts to become a **4th**  
 a **6th** inverts to become a **3rd**  
 a **7th** inverts to become a **2nd**

a **Perfect** interval inverts to a **Perfect** interval  
 a **Major** interval inverts to a **Minor** interval  
 a **Minor** interval inverts to a **Major** interval  
 an **Augmented** interval inverts to a **Diminished** interval  
 a **Diminished** interval inverts to an **Augmented** interval

## SOLFÈGE

**SOLFÈGE** is the method of note reading where each note is assigned a syllable. There are two common Solfège systems that are in use today - **“FIXED” DO** and **“MOVEABLE” DO**. The “Fixed” system, assigns the syllable DO (pronounced Doe) to the note “C”. All other syllables are determined in relationship to “C”. The “Moveable” system assigns the syllable DO to the Tonic of the Key. All other syllables are determined in relationship to the Tonic.

### SOLFÈGE “DIATONIC” SYLLABLES

A musical staff in treble clef showing the diatonic scale. The notes are whole notes on the lines and spaces: C1 (Do), D2 (Re), E3 (Mi), F4 (Fa), G4 (Sol), A4 (La), B4 (Ti), and C5 (Do). Below each note is a number (1-8) and the corresponding syllable.

1	2	3	4	5	6	7	8
Do	Re	Mi	Fa	Sol	La	Ti	Do

### SOLFÈGE “CHROMATIC” SYLLABLES

A musical staff in treble clef showing the chromatic scale. The notes are whole notes: C1 (Do), C#1 (Di), D2 (Re), D#2 (Ri), E3 (Mi), F4 (Fa), F#4 (Fi), G4 (Sol), G#4 (Si), A4 (La), A#4 (Li), B4 (Ti), and C5 (Do). Below each note is a number and the corresponding syllable.

1	#1	2	#2	3	4	#4	5	#5	6	#6	7	8
Do	Di	Re	Ri	Mi	Fa	Fi	Sol	Si	La	Li	Ti	Do

A musical staff in treble clef showing the chromatic scale descending. The notes are whole notes: C5 (Do), B4 (Ti), Bb4 (Te), A4 (La), Ab4 (Le), G4 (Sol), Gb4 (Se), F4 (Fa), E4 (Mi), Eb4 (Me), D4 (Re), Db4 (Ra), and C4 (Do). Below each note is a number and the corresponding syllable.

8	7	b7	6	b6	5	b5	4	3	b3	2	b2	1
Do	Ti	Te	La	Le	Sol	Se	Fa	Mi	Me	Re	Ra	Do

**MODES**

**MODES** are scales built on each scale degree of a major scale, thus there are seven different modes related to the seven different notes in a major scale. Modes share a key signature but have a different starting pitch.

**IONIAN (built on scale degree 1)**

C - D - E - F - G - A - B - C

**C Ionian****Major Scale****DORIAN (built on scale degree 2)**

D - E - F - G - A - B - C - D

**D Dorian****Natural Minor Scale****with raised scale degree 6**

\*also referred to as the Jazz Minor Scale

**PHRYGIAN (built on scale degree 3)**

E - F - G - A - B - C - D - E

**E Phrygian****Natural Minor Scale****with lowered scale degree 2****LYDIAN (built on scale degree 4)**

F - G - A - B - C - D - E - F

**F Lydian****Major Scale****with raised scale degree 4****MIXOLYDIAN (built on scale degree 5)**

G - A - B - C - D - E - F - G

**G Mixolydian****Major Scale****with lowered scale degree 7\***

\*also referred to as the Dominant 7th Scale

**AEOLIAN (built on scale degree 6)**

A - B - C - D - E - F - G - A

**A Aeolian****Natural Minor Scale****LOCRIAN (built on scale degree 7)**

B - C - D - E - F - G - A - B

**B Locrian**

## MUSICAL FORM

The term **MUSICAL FORM** (or **MUSIC ARCHITECTURE**) refers to the overall structure or plan of a piece of music, often defining the layout of a composition by labeling each section with a letter. Just as writing a book begins with the basic components of writing, creating a piece of music begins with the basic components of music.

<u><b>WRITING</b></u>	<u><b>MUSIC</b></u>
Letter	Notes
Words	Note Grouping
Sentences	Motives (Motifs)
Paragraphs	Phrases
Chapters/Units	Sections
<b>BOOK</b>	<b>MUSIC</b>

A **MOTIVE** (or **MOTIF**) is a short musical idea, usually melodic, rhythmic, or harmonic, that has a special importance or is characteristic of a composition. This musical idea is heard again and again throughout the composition.

The term **PHRASING** is used in music to signify how groups of notes are played together, regardless of the structure of the music.

A **PHRASE** is a musical thought (typically four measures long) that ends with a cadence (specific chord structure) that can be strong or weak. When more than two phrases are combined, it is called a **PHRASE GROUP**. When speaking, the end of a phrase occurs when you take a breath, usually at a comma or other punctuation mark. In music, we follow a similar practice.

### EXAMPLE:

Say the following statements aloud, emphasizing the words in bold. Each statement is an example of a **Phrase**. The way in which the phrase is read is an example of **Phrasing**.

I love making music

I **LOVE** making music

I love **MAKING** music

I love making **MUSIC**

We use a **BREATH MARK** ( ♪ ) to indicate when to breath, thus separating phrases into logical musical thoughts. Not all music includes breath marks, so it is up the each individual performer to determine how best to divide each phrase.

In music, several phrases can be combined to create a complete section or collection of ideas called **FORM**. There are several common forms, including:

**BINARY FORM (A-B)** - This is a two-part form consisting of an A section and a contrasting B section.

**TERNARY FORM (A-B-A)** - This is a three-part form consisting of 2 unique sections. The A section (Statement), the B section (Contrasting Statement), and the A section (Restatement of the A section)

**RONDO (A-B-A-B-A or A-B-A-C-A or A-B-A-C-A-B-A)** - This is a multi-part form that consists of an A section that alternates with other contrasting sections.

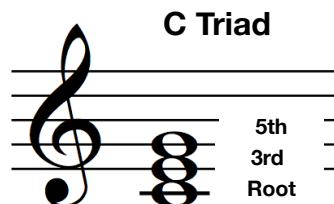
**ARCH (A-B-C-B-A)** - This is a multi-part form that resembles an Arch in its layout.

**SONATA** - This form is the most complex and varied of the forms, but is a very common compositional practice. Sonata form follows this structure...

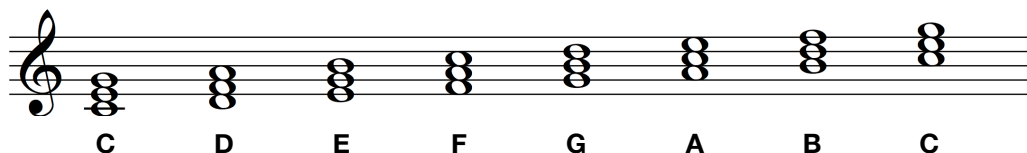
EXPOSITION (Theme 1 - Theme 2) - DEVELOPMENT - RECAPITULATION (Theme 1 - Theme 2)

## CHORDS

Three or more pitches sounding together produce a **CHORD**. A three note chord consisting of a root, a 3rd and a 5th, is referred to as a **TRIAD**. The **ROOT** is the note from which the triad gets its name. When the root is the bottom pitch, we say that the triad is in **ROOT POSITION**. To build a triad, select a root note and add a 3rd and a 5th above the root. This will always result in a line - line - line or space - space - space note configuration.



Triads can be built on any note of the scale.



## BLOCK CHORDS - ARPEGGIO

A **BLOCK CHORD** occurs when all of the notes of a chord are played together. A **BROKEN CHORD** is when all of the notes of a chord are played separately. An **ARPEGGIO** is a type of “broken” chord that is played sequentially... Root, 3rd, 5th. Octave. A **TONIC ARPEGGIO** is an arpeggio built on scale degree 1 (Tonic) of the scale. Using any Major or Minor Scale, play scale degrees 1, 3, 5, and 8 to perform the tonic arpeggio. Arpeggios can be played ascending or descending and can continue into multiple octaves.



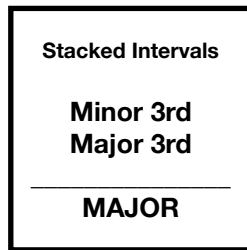
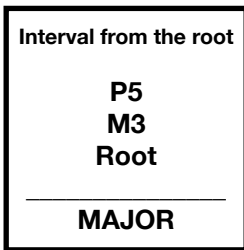
**C Major Scale... (Scale Degree 1 (Tonic) = C)**

C - D - E - F - G - A - B - C becomes... C E G C

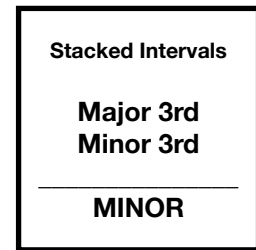
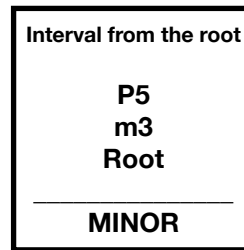
**CHORD TYPES (CHORD EQUATIONS)**

There are four primary chord types that we encounter in music... Major, Minor, Augmented and Diminished. Each chord serves a different function in our traditional system of harmony, but they are easy to identify

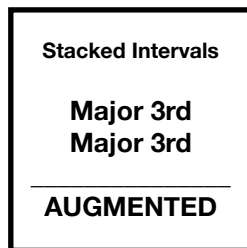
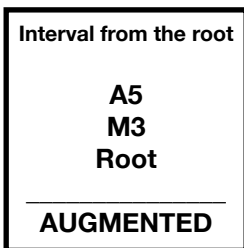
**MAJOR CHORDS**



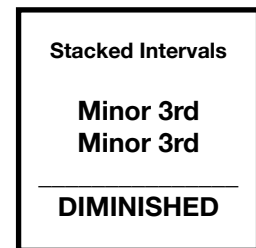
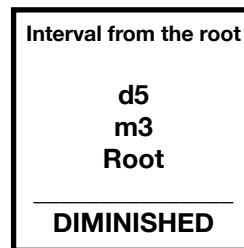
**MINOR CHORDS**



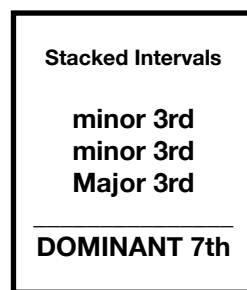
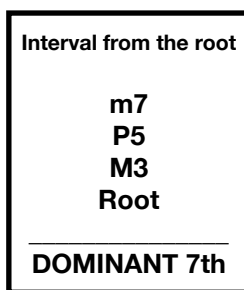
**AUGMENTED CHORDS**



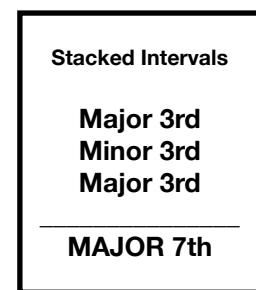
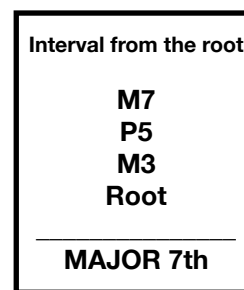
**DIMINISHED CHORDS**



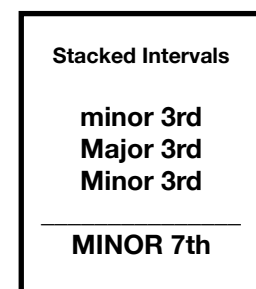
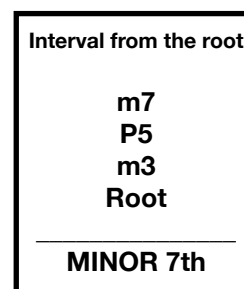
**DOMINANT 7th CHORDS**



**MAJOR 7th CHORDS**



**MINOR 7th CHORDS**



This are just a few examples of the many chords types found in music.

## INVERSIONS

Any root position triad can be altered by moving the root (bottom note) of the chord to another position within the chord. This is called an **INVERSION**, meaning that a note other than the root is on the bottom.

**ROOT** on the bottom = **ROOT POSITION**

**3rd** on the bottom = **1st INVERSION**

**5th** on the bottom = **2nd INVERSION**

The diagram illustrates three triad inversions on a five-line staff:

- ROOT POSITION:** The notes are arranged from bottom to top as Root, 3rd, and 5th.
- 1st INVERSION:** The notes are arranged from bottom to top as 3rd, Root, and 5th.
- 2nd INVERSION:** The notes are arranged from bottom to top as 5th, 3rd, and Root.

Triads can be extended by adding notes (using intervals of a 3rd) above the root. Common chords include sevenths, ninths, elevenths, and thirteenth. The most common 7th chords include:

The diagram shows three 7th chords on a five-line staff:

- DOMINANT 7th (C<sup>7</sup>):** A C major triad with a flat 7th (Bb).
- MAJOR 7th (C<sup>ma7</sup>):** A C major triad with a natural 7th (B).
- MINOR 7th (C<sup>m7</sup>):** A C minor triad with a natural 7th (B).

Similar to a triad, a chord can also be inverted. Since there are 4 notes, we have 4 choices as to which note is on the bottom.

**ROOT** on the bottom = **ROOT POSITION**

**3rd** on the bottom = **1st INVERSION**

**5th** on the bottom = **2nd INVERSION**

**7th** on the bottom = **3rd INVERSION**

The diagram illustrates four 7th chord inversions on a five-line staff:

- ROOT POSITION:** The notes are arranged from bottom to top as Root, 3rd, 5th, and 7th.
- 1st INVERSION:** The notes are arranged from bottom to top as 3rd, Root, 5th, and 7th.
- 2nd INVERSION:** The notes are arranged from bottom to top as 5th, 3rd, Root, and 7th.
- 3rd INVERSION:** The notes are arranged from bottom to top as 7th, 5th, 3rd, and Root.

### TRIADS WITHIN TONALITY

Triads built on every note in the scale define the **DIATONIC TRIADS**. Diatonic meaning “From the Key”. The triads are labeled according to the scale degree that they are built upon, however we further define the chord type using upper case and lower case roman numerals to indicate major and minor. Every diatonic triad can also be identified by its official name. This helps define the role that each note/chord plays in the scale/harmonic progression.

#### Diatonic Triads in Major Key

TONIC    SUPERTONIC    MEDIANT    SUBDOMINANT    DOMINANT    SUBMEDIANT    LEADING TONE    TONIC

Diatonic Triads in minor work the same way... When dealing with chords, we use the Harmonic Minor Scale.

#### Diatonic Triads in Minor Key

**MAESTRO TIP:** The G# comes from common practice of raising the Leading Tone over Dominant Function Harmony.

## MELODY & HARMONY

**Melody** is defined as a succession of tones comprised of rhythm and pitches arranged to achieve a **musical** shape or line. In music where there is more than one voice or when harmony is present, the **melody** is the prominent tune of the composition.

**Harmony** is the simultaneous combination of tones, especially when blended into chords pleasing to the ear.

## TEXTURE

**Monophony (monophonic)** is the simplest of musical textures consisting of a melody (or "tune"), typically performed by a single singer or instrumentalist without accompanying harmony or chords.

**Homophony (Homophonic)** is another simple musical texture consisting of multiple singers or instrumentalists performing the same melodic line, however, one musician plays one note and a second musician places a note in harmony.

**Polyphony (Polyphonic)** is a type of musical texture consisting of two or more simultaneous lines of independent melody.

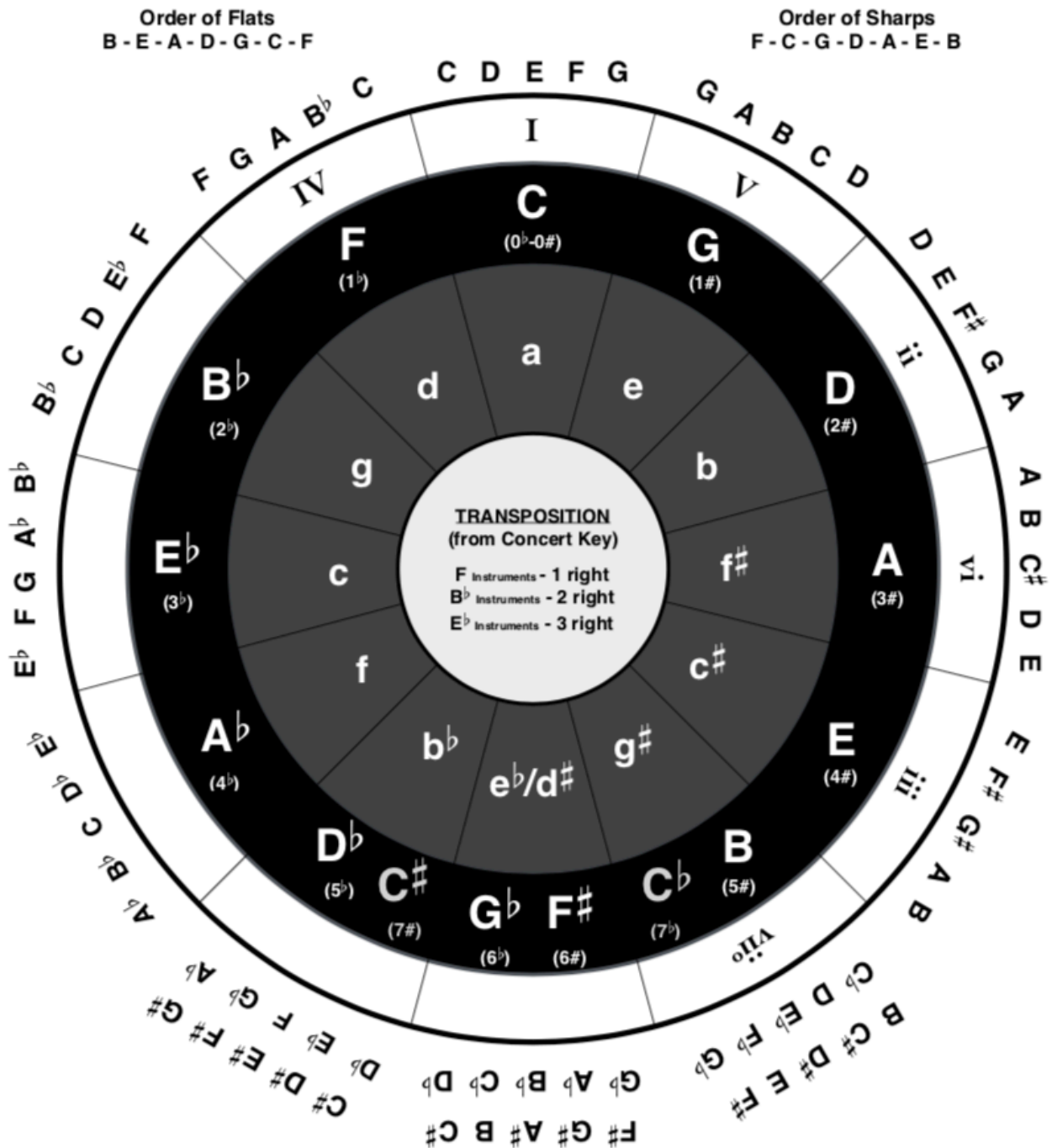
## CONSONANCE vs. DISSONANCE

**Consonance** and **Dissonance** are categorized as opposites in music. **Consonance** is the impression of stability and repose. **Dissonance** is the impression of instability and tension.

### CHORD FUNCTION

Music sounds “good” because there are rules that govern how and when to use specific chords. Chords “function” in a certain way and this gives us the many interesting and unique sounds that we hear in compositions.

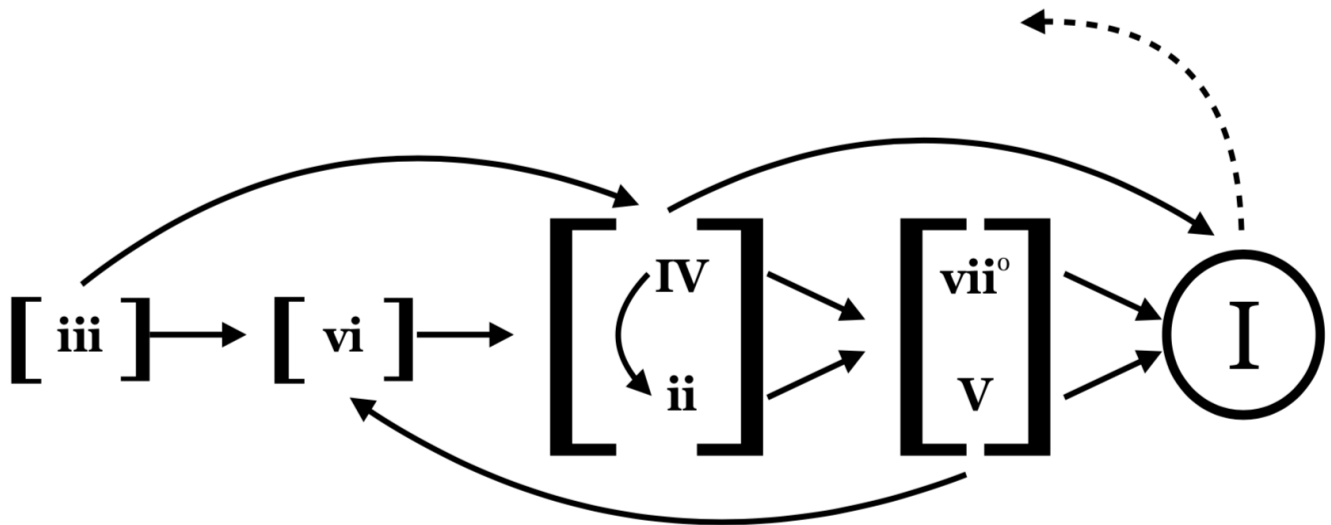
**MAESTRO TIP:** The roman numerals around the circle identify the diatonic chords as they relate to the Tonic (I) Chord. If you think of the outer circle that has the Roman numerals as a floating circle that can be turned left or right, you can use the layout to understand the diatonic chords in any key. The circle by default outlines C as the tonic chord.



**CHORD PROGRESSION**

The movement (progression) of chords from one chord to another is known as a **CHORD PROGRESSION**. Chords follow a logical path with the goal of returning to Tonic (I). Listed below are the “basic” chord progression options for both Major and Minor tonalities.

**CHORD PROGRESSION DIAGRAM - MAJOR**



**CHORD PROGRESSION DIAGRAM - MINOR**

