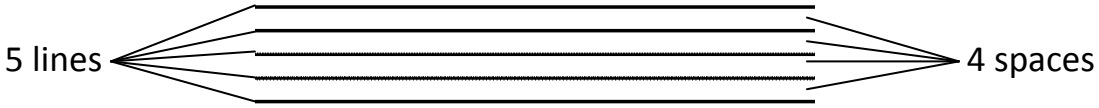
DADE COUNTY BANDS

STUDENT RESOURCE BOOK

TABLE OF CONTENTS

STAFF

In music, the **staff** is the set of 5 lines and 4 spaces where notes and rests are placed. It looks like the following:



CLEFS

A **clef** is a symbol that is placed on the staff and it tells us what notes are on our lines or spaces.
There are two clefs that we will deal with in band: the **Treble Clef** and the **Bass Clef.**

The **Treble Clef** is also known as the G Clef because it shows us the position of G on the staff.

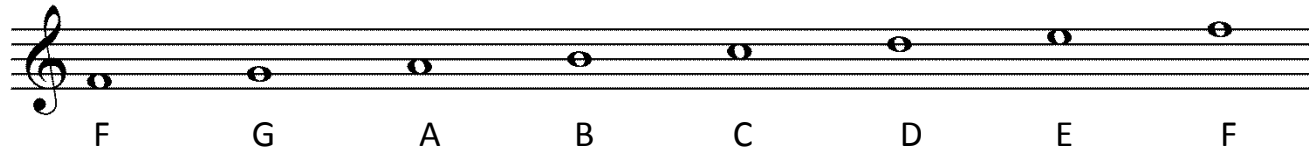
Flutes, Oboes, Clarinets, Saxophones, Trumpets, Horns, and Percussion read treble clef.

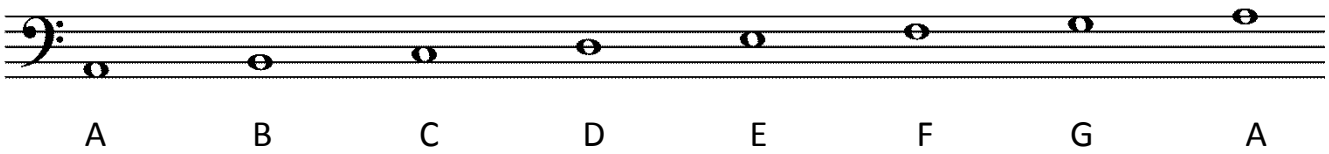
The **Bass Clef** is also known as the F Clef because it shows us the position of F on the staff.

Bassoons, Trombones, Baritones/Euphoniums, Tubas, and Percussion read bass clef.

NOTE PLACEMENT ON THE STAFF

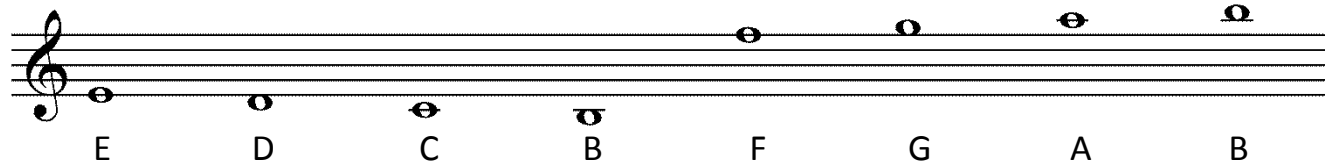
There are 7 letter names used in music. (A, B, C, D, E, F, and G) When going higher on the staff, we go forward in the alphabet. When going lower on the staff, we go backwards in the alphabet. When going higher and we reach G, we start back over with A and continue on. When going lower and we reach A, we start back with G and continue on.

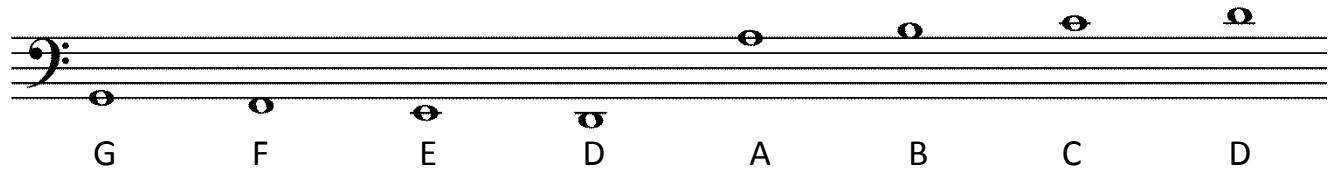




LEDGER LINES

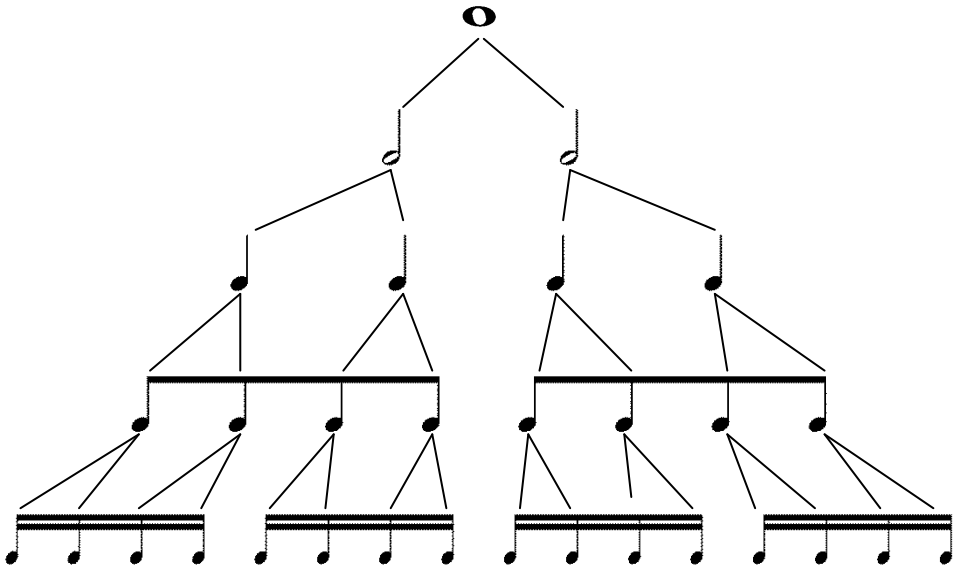
Ledger lines are additional lines added above or below the staff to extend the staff. Our note names continue to go alphabetical up or down with the ledger lines. Below are examples of reading notes on ledger lines in both clefs.





NOTE RELATIONSHIPS

The following chart shows the break down of note values.
Example: two half notes equal one whole note.



TIME SIGNATURES

A time signature tells us two things:

4 ← The top number tells us the number of beats in each measure.

4 ← The bottom number tells us how many counts the whole note gets.

2 on bottom =	**4 on bottom =**	**8 on bottom =**
= 2	= 4	= 8
= 1	= 2	= 4
= ½	= 1	= 2
= ¼	= ½	= 1
= 1/8	= ¼	= ½

TIES

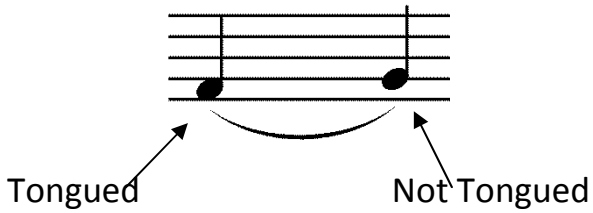
A **tie** is a curved line that attaches 2 or more notes of the **SAME** pitch. Ties add note values together and are to be played as one unbroken note. Multiple examples of counting tied notes are given below (each example is treated as being in a time signature with a 4 on the bottom):

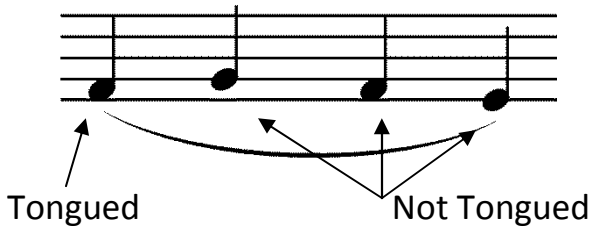
The half note receives 2 beats.
The quarter note receives 1 beat.
2 beats for the half note + 1 beat for the quarter note = 3 beats for the tied notes.

The quarter note receives 1 beat.
The eighth note receives ½ a beat.
1 beat for the quarter note + ½ a beat for the eighth note = 1 ½ beats for the tied notes.

SLURS

A **slur** is a curved line that attaches 2 or more notes of **DIFFERENT** pitch. The first note under a slur marking is to be tongued and all remaining notes should not be tongued.





DOTTED NOTES

A dot added after a note changes the note's value. A dot always **ADDS HALF OF WHATS BEFORE IT.** Multiple examples are given below (each example is treated as being in a time signature with a 4 on the bottom):

The half note receives 2 beats.
The dot ADDS half of 2 to the note. Half of 2 = 1
2 beats for the half note + 1 beat for the dot = 3 beats for the dotted half note.

The quarter note receives 1 beat.
The dot ADDS half of 1 to the note. Half of 1 = ½
1 beat for the quarter note + ½ a beat for the dot = 1 ½ beats for the dotted quarter note.

The eighth note receives ½ a beat.
The dot ADDS half of ½ to the note. Half of ½ = ¼
½ a beat for the eighth note + ¼ of a beat for the dot = ¾ of a beat for the dotted eighth note.

DOUBLE DOTTED NOTES

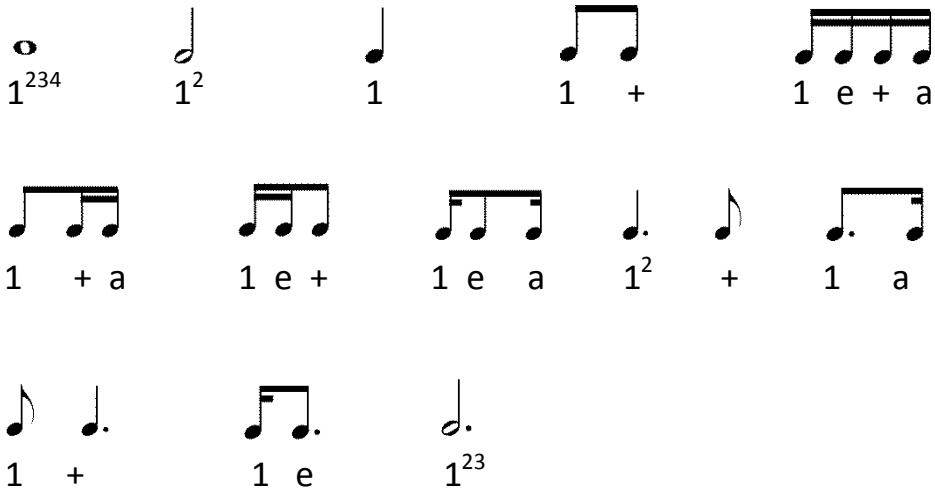
What happens if we have a note followed by 2 dots? The first dot ADDS half of the note value and the second dot ADDS half of the value of the first dot. An example is given below:

The half note receives 2 beats.
The first dot ADDS half of 2 to the note. Half of 2 = 1
The second dot ADDS half of the first dot. Half of 1 = ½
2 beats for the half note + 1 beat for the first dot + ½ a beat for the second dot = 3 ½ beats for the double dotted half note.

COUNTING RHYTHMS

The following gives examples of how to count common rhythm patterns in time signatures with a 4 on the bottom.

Time Signatures with a 4 on the bottom:



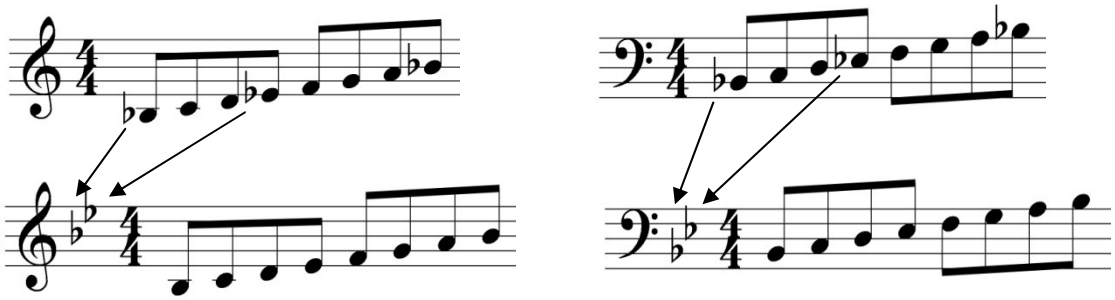
KEY SIGNATURES

A **key signature** is a set of sharps **or** flats at the beginning of a piece of music that tells us to play certain notes as sharp or flat all the way through the piece. The key signature is derived from the sharps or flats present in the major scale.
*Key signatures will **never** contain both sharps and flats at the same time!*

Example # 1:

The first set of examples below show the B^b major scale written without a key signature. There are two notes in the scale that are flat: B^b, E^b.

The second set of examples, show the scale written using a key signature. The flat notes in the scale have now been moved over to the key signature.



In the above examples, the same notes are played flat each time.

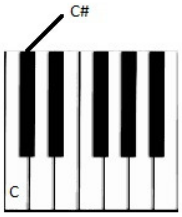
Key signatures are read from left to right. The sharps and flats are ALWAYS put in the same order.

The Order of Flats is: B E A D G C F

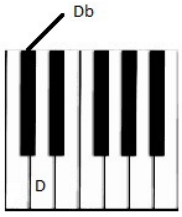
The Order of Sharps is: F C G D A E B

ENHARMONICS

When we sharp (#) a note, we go higher on the keyboard. (Example – C to C#)



When we flat (b) a note, we go lower on the keyboard. (Example – D to Db)



Notice that both C# and Db are on the same key on the keyboard.

These notes are called enharmonic.

Enharmonic notes sound the same and are fingered the same, but are written different.

There are several enharmonic notes that we see on a regular basis.

You need to be familiar with all the enharmonic notes to be a proficient musician.

The enharmonic notes are as follows:

C#/Db	**E#/F**	**A#/Bb**
D#/Eb	**F#/Gb**	**B/Cb**
E/Fb	**G#/Ab**	**B#/C**

MAJOR and CHROMATIC SCALES

In music, a scale is a series of ascending (going up) and descending (going down) notes.

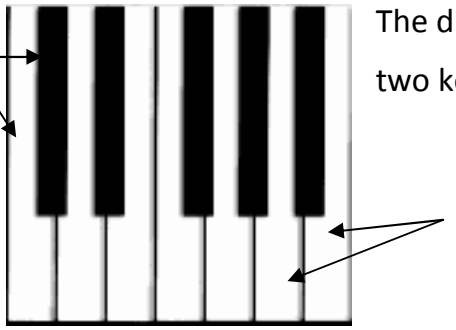
There are many types of scales. The **Major Scale** and the **Chromatic Scale** are explained below.

A major scale is based on a specific series of whole steps (W) and half steps (h). A chromatic scale is made up entirely of half steps.

A whole step consists of two half steps. A half step is the distance between two adjacent keys on a keyboard.

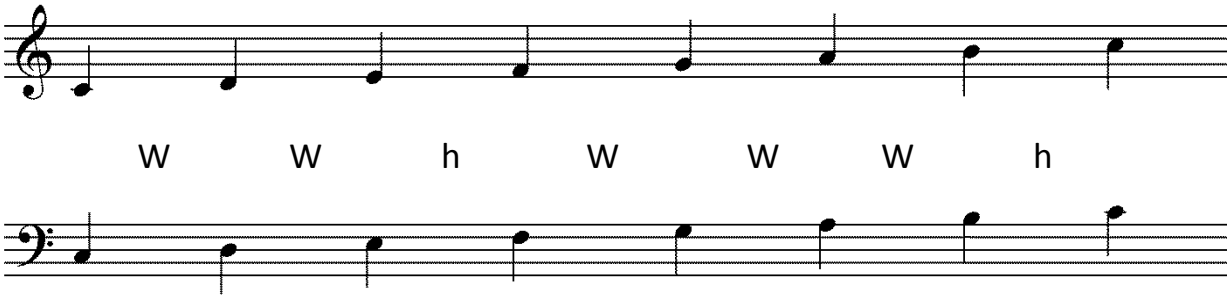
Example:

The distance between these two keys is a half step.

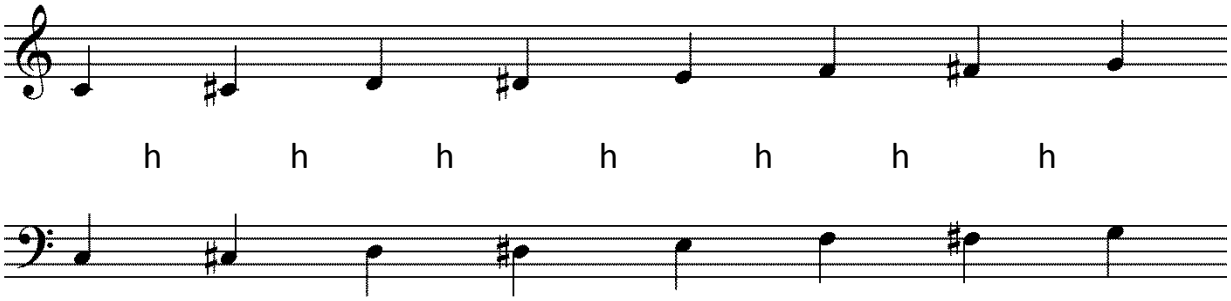


The distance between these two keys is a whole step.

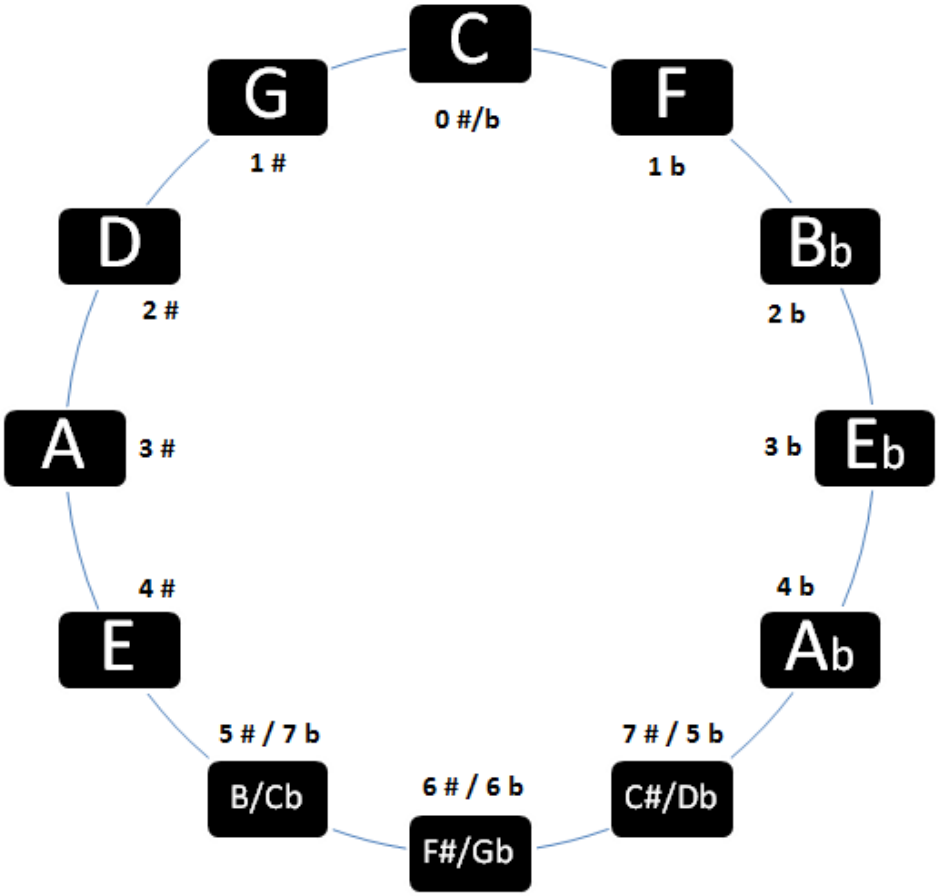
The following is an example of a major scale starting on C. The placement of whole steps (W) and half steps (h) are marked.



The following is an example of a chromatic scale starting on C. The scale contains only half steps.



CIRCLE OF FOURTHS



ORDER OF FLATS

B E A D G C F

ORDER OF SHARPS

F C G D A E B

INTERVALS

In music, the term **interval** refers to the distance between two notes. Each interval has a specific name. Those names are shown below and an explanation on how we find the name.
In order to find an interval name, we must count all letter names involved between and including the letter names of the notes shown.

Unison
Involves 1 note name  (both pitches are C)

Second (2nd)
Involves 2 note names  (2 letter names – C, D)

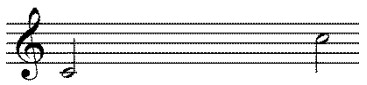
Third (3rd)
Involves 3 note names  (3 letter names – C, D, E)

Fourth (4th)
Involves 4 note names  (4 letter names – C, D, E, F)

Fifth (5th)
Involves 5 note names  (5 letter names – C, D, E, F, G)

Sixth (6th)
Involves 6 note names  (6 letter names – C, D, E, F, G, A)

Seventh (7th)
Involves 7 note names  (7 letter names – C, D, E, F, G, A, B)

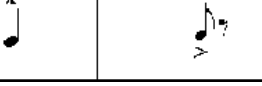
Octave (8th)
Involves 8 note names  (8 letter names – C, D, E, F, G, A, B, C)

We can continue to go higher by just continuing to count the letter names involved in each interval.

ARTICULATIONS

A clear understanding of articulations and how they are played is very important to create a good, uniformed ensemble sound.

The following chart shows articulation types, written representations of the note, interpreted values of the note, visual representations of the note length, and a description of how each should be played.

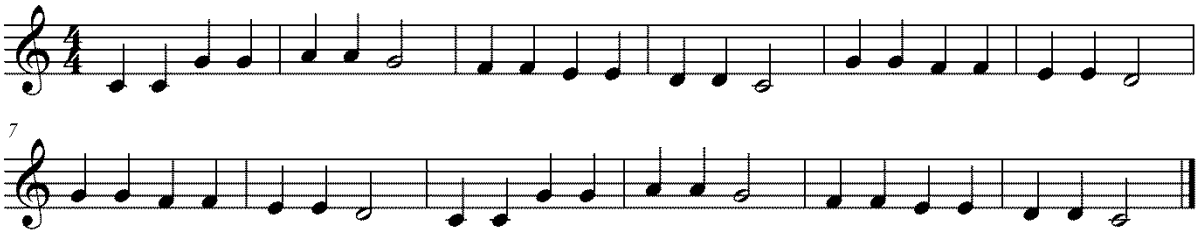
Name	Written	Interpreted Value	Visual Length of Note	Description
				Slightly Seperated
Staccato				Lightly Seperated (1/2 value of written note)
Accent				Heavy, Detached (3/4 value of written note)
Tenuto				Full length note (Full value of written note)
Marcato				Short, Intense (Accented hard, 1/2 value)

In the column for visual length of the note, each box is representative of 1 beat and the shaded area is the length the note should be played within that beat.

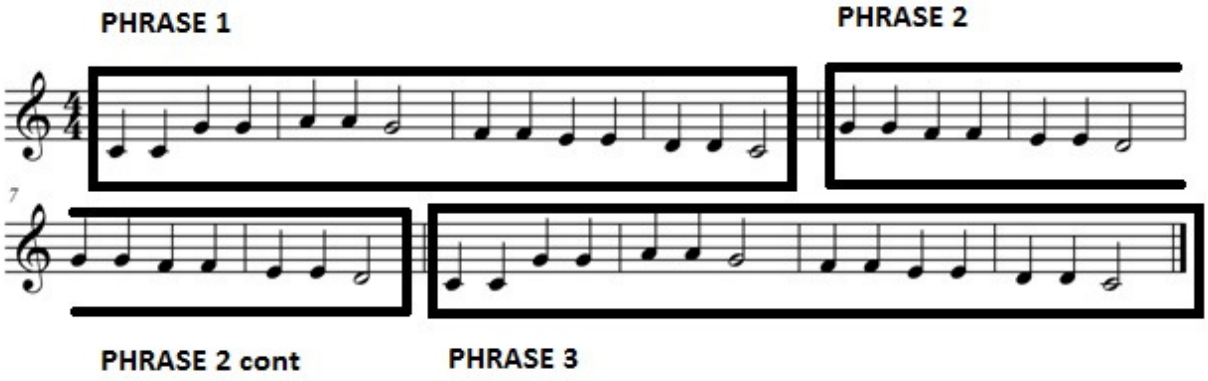
PHRASING

A **phrase**, in music, is a complete musical thought. Phrases are typically 4 or 8 measures long (but may be more or less depending on the music).

Look at the following musical selection (Twinkle, Twinkle Little Star):



This selection can be broken into 3 phrases, each 4 measures long.



In order for our phrasing to be correct and to produce a complete musical thought, we must breathe **ONLY** at the end of the phrase or at breath marks provided by the composer.

If we breathe in inappropriate places, our performance becomes segmented and choppy and does not make sense to the audience. To understand this concept, try singing Twinkle, Twinkle and taking breaths at random spots in the song. Then sing the song again, breathing the end of each phrase only.

Breathing at appropriate places is only one part of musical phrasing. We must also play through the phrase in a musical way by emphasizing the high points, playing dynamics, articulations, etc. This concept will be covered in more detail as we perform our musical selections.

PRACTICE TECHNIQUES FOR TECHNICAL PATTERNS

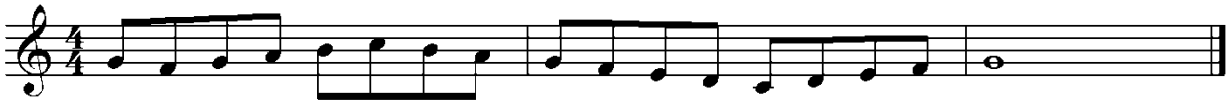
Proper practice techniques are **EXTREMELY** important to properly and quickly learn music.

First, we need to define what a good practice session is supposed to encompass:

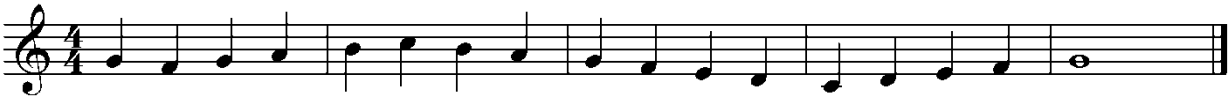
1. **Warm-up** – Long tones, breathing exercises, lip slurs, register jumps, etc. (5 minutes)
2. **Scales** – Practice scales daily to improve other aspects of playing. Work on accuracy and speed to improve technical passages. (5 minutes)
3. **Music** – This should first include music that is NOT easy to play. Pull out the sections that need the most work and focus on those items. Then, for fun, play some of the things that you can already play before putting your instrument up. **Spend more time on the hard things though!!!** (15 minutes)
4. **Sight-read** – Pick a song out of the book; find other sheet music, etc. and sight-read a piece you have never seen before. This will help with your ability to be more accurate the first time you see a new piece.

Now that we have defined what a good practice should be, here are a few techniques that you can use to make your practicing more efficient.

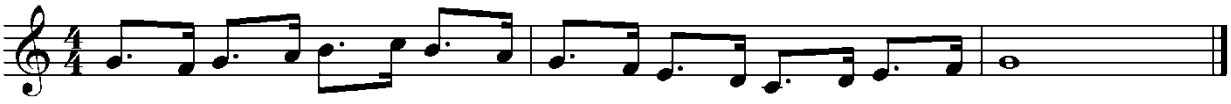
1. When playing a technical passage such as this:

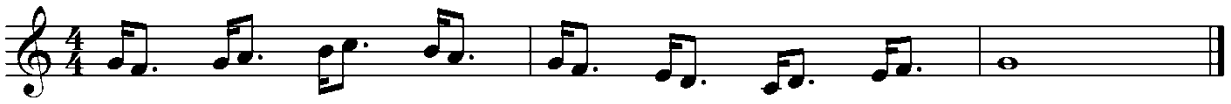


   a. Change the rhythm to longer note values to better attain the fingering pattern:

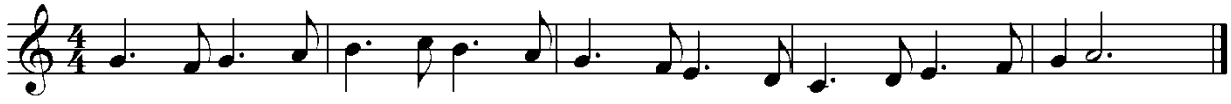


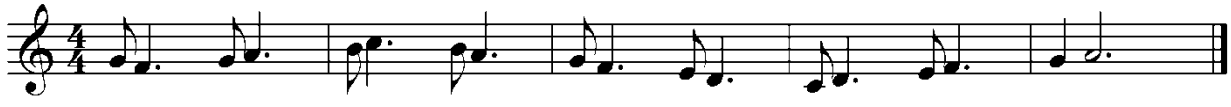
   b. Change the rhythm to the following patterns to allow the fingers to rest on certain notes longer to allow for muscle memory to develop:





   c. The following may also be done (if the above is not attainable immediately) to improve tonguing and muscle memory.



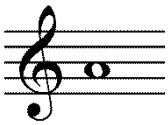


SOUND WAVES AND TUNING

Every pitch that we play produces a sound wave.

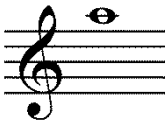
Each high and low point on the wave is a single vibration. The number of vibrations per second depends on the pitch that we play and in what octave we play that pitch in.

If we play the following:

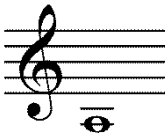


The pitch creates 440 vibrations per second.

As the pitch gets higher, the vibrations increase. So, the same pitch one octave higher vibrates twice as fast (880 vibrations per second).



As the pitch gets lower, the vibrations decrease. So, the same pitch one octave lower than the original example vibrates at half the speed (220 vibrations per second.)



It is possible to play every pitch with the number of vibrations faster or slower than the desired outcome. If instruments in the group are playing pitches with different numbers of vibrations per second then the sound waves do not line up.

When the sound waves do not line up properly, we are playing "out of tune".

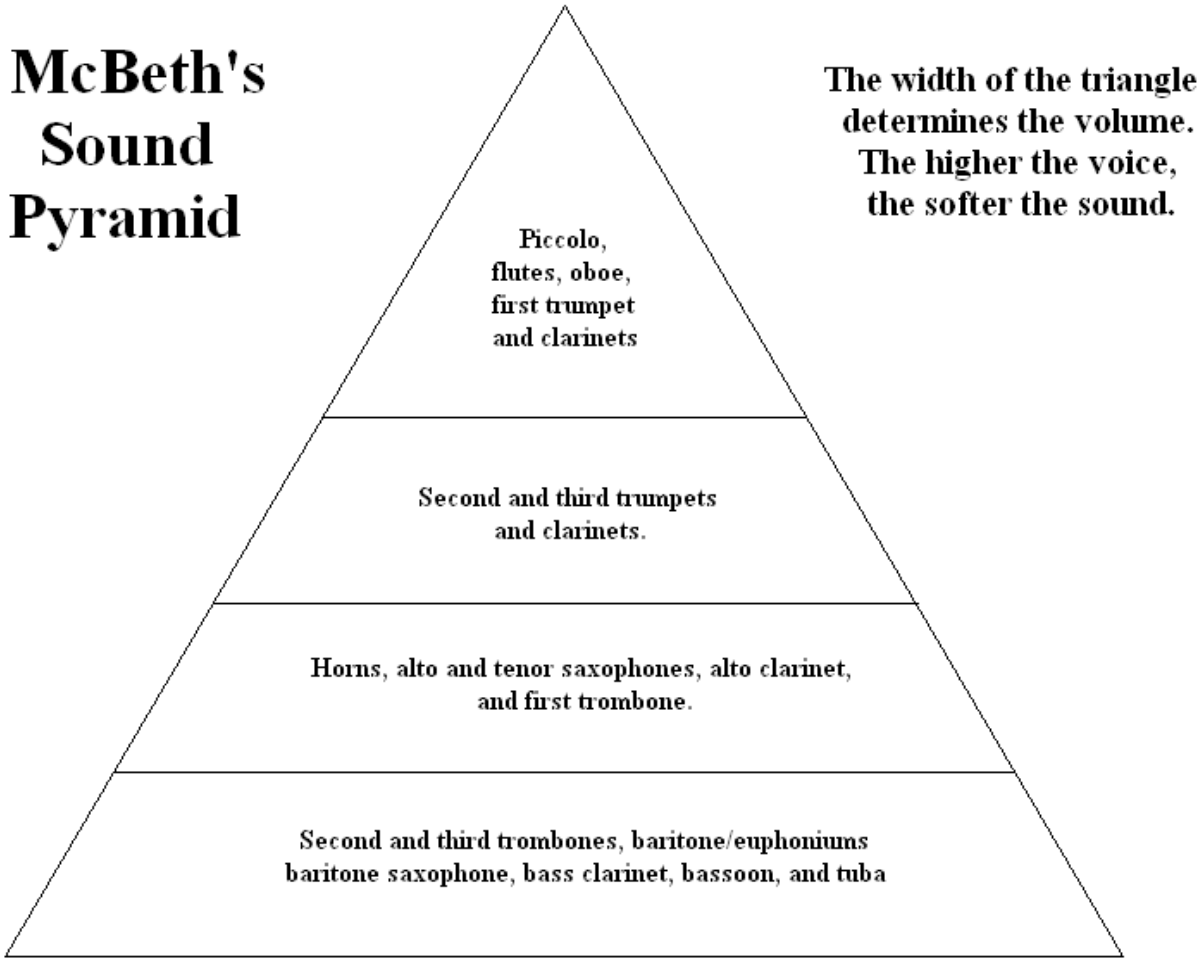
When we are playing "out of tune", you will hear beats (pulsing) in the sound between the instruments. We must make adjustments to our instruments to lengthen or shorten it so that the vibrations will be begin to line up and we can play "in tune".

Playing "out of tune" is displeasing to the ear and should be fixed immediately to allow for a top notch performance. An audience does not want to listen to an "out of tune" band. It is like listening to some one scrape their fingernails down a chalkboard.

ENSEMBLE BALANCE

In order for a band to sound its best, we must play with proper balance. The following diagram shows us how we should balance the ensemble.

Remember, the instrument or instruments playing the melody are ALWAYS the most important and should be the most prominent. After making sure the melody is heard, the ensemble must then be balanced as follows:



BALANCE, BLEND, and INTONATION

If you hear yourself over the entire ensemble, then one or more of the following is the problem:

1. **BALANCE**:
   If you hear yourself above all others in your section or band, YOU are **OVERPOWERING** or **OVERBLOWING**.

   Make an adjustment to volume by playing softer. Lose your individual identity!

2. **BLEND:**
   If you still hear yourself and you made the volume adjustment in #1, then **YOU are PLAYING WITH POOR TONE QUALITY**.

   Make an adjustment with your embouchure, breath support, or posture. Poor tone quality will not blend with your section or band. **Lose your individual identity!**

3. **INTONATION:**
   If you still hear yourself and you made the adjustments in #1 and #2, then **YOU are PLAYING OUT OF TUNE.**

   Adjust the length of your instrument. Apply the 6 step beat less tuning procedure below.

   1. As you play Concert F with the band, listen for the "beats". Make an adjustment with the barrel, mouthpiece, or slide. ***Did the beats speed up or slow down?***
   2. If the "beats" are faster, you moved the barrel, mouthpiece or slide in the wrong direction. Move it in the opposite direction.
   3. If the "beats" became slower, you are making the correct move. Continue in this direction until all "beats" are eliminated.
   4. If you find yourself "pinching" your embouchure to eliminate "beats", your instrument is too long, it must be shortened.
   5. If you find yourself "relaxing" your embouchure to eliminate "beats", your instrument is too short, it must be lengthened.
   6. When you are playing the same pitch, without any unnecessary embouchure pressure or relaxation, and you are not able to identify any "individual sound" in your section, the you and your section are perfectly in tune and playing with proper balance and blen.

COMMON MUSICAL TERMS

1. **1st & 2nd Endings** – Play through the 1st ending then play the repeated section of music, skipping the 1st ending and playing the 2nd ending.
2. **Accent** – Articulation that means to emphasize the note and play ¾ of the written value.
3. **Accelerando** – Gradually quicken the tempo.
4. **Accidental** – Any sharp, flat or natural sign which appears in the music without being in the key signature.
5. **Allegro** - lively tempo.
6. **Andante** – Slow, walking Tempo
7. **Articulation** – How we tongue or not tongue a note.
8. **A tempo** – Return to the original tempo.
9. **Bar Lines** – vertical lines that divide the staff.
10. **Beat** – the pulse of music.
11. **Breath Mark** – Take a deep breath through your mouth.
12. **Clef** – indicates the position of note names on a music staff. (Treble, Bass, etc.)
13. **Coda** – closing section of a piece of music.
14. **Consonance** – harmonious, pleasing to the ear.
15. **Crescendo** – Gradually get louder.
16. **Da Capo (D.C.)** – to the beginning.
17. **Dal Segno (D.S.)** – to the sign.
18. **Decrescendo** – Gradually get softer.
19. **Diminuendo** – Gradually get softer.
20. **Dissonance** – harsh, lack of harmony. Not pleasing to the ear.
21. **Dot** – Adds half the value of the note to itself.
22. **Double Bar** – indicates the end of a piece of music.
23. **Duet** – A composition (piece of music) with two different parts being played or sung at the same time.
24. **Dynamics** – Tell us how loud or soft to play.
25. **Fermata** – Hold the note or rest longer than normal.
26. **Fine** (fee-nay) – the end.
27. **Flat** - makes the note sound lower and remains in effect for the entire measure.
28. **Forte** – play loud
29. **Fortissimo** – play very loud
30. **Harmony** – two or more notes played together. Each combination forms a chord.
31. **Key Signature** – tells us which notes to play as sharp or flat throughout a piece of music.
32. **Ledger Lines** – short lines above and below the staff. These lines extend the staff so that more notes can be played than just the notes on the staff.
33. **Legato** – play smoothly.
34. **Marcato** – Articulation that means to emphasize the note and play for ½ the written value.
35. **Measure** – the space between two bar lines.
36. **Melody** – the main theme or idea of the piece of music.
37. **Mezzo Forte** – play medium loud.
38. **Mezzo Piano** – play medium soft
39. **Moderato** – Moderate tempo
40. **Natural** - cancels a flat or sharp and remains in effect for the entire measure.
41. **Pianissimo** – play very soft
42. **Piano** – play soft
43. **Pick-up Notes** – One or more notes that come before the first full measure. The beats of Pick-up Notes are subtracted from the last measure. May also be called an anacrusis.
44. **Rallentando** – Greatly slow the tempo.
45. **Ritardando** – Gradually slow the tempo.
46. **Sharp** – makes the note sound higher and remains in effect for the entire measure.
47. **Slur** – Curved line connecting notes of different pitches. Indicates to the performer to not tongue the notes.
48. **Soli** – entire section or group plays.

49. **Solo** – one person plays.
50. **Staccato** – play a note for ½ the written value.
51. **Staff** – a set of 5 lines and 4 spaces where notes and rests are placed
52. **Tempo** – the speed of music.
53. **Tenuto** – Articulation that means to perform the note lightly and for full written value.
54. **Tie** – A curved line connecting notes of the same pitch and indicates to the performer to add the connected note values together and play as one unbroken note.
55. **Time Signature** – indicates how many beats per measure (top number) and how many beats the whole note receives. (bottom number)
56. **Tuning** - the act of raising and lowering a pitch of an instrument to produce the correct tone of a note.
57. **Tutti** – everyone play.