

# SHHS Marching Band Cookbook

## TUBA

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# IMPORTANT REHEARSAL MATERIALS

**MOUTHPIECE (Brass):** Double and triple check that you have a mouthpiece ready to go before every rehearsal.

**REEDS (Woodwinds):** Please have 2-3 working reeds in your case at all times. Rotate these reeds each day so they wear evenly.

**THREE-RING BINDER:** All woodwind, brass, and percussion members are required to have a 1-inch three-ring binder with sheet protectors. All your music and this Cookbook will live here, protected from the rain and wind. This will be used at **EVERY REHEARSAL**.

**PENCIL:** It is extremely important that every band member have a pencil ready at all times. Notes are taken at every rehearsal. Write **EVERYTHING** down! The more details you write in your music and dot books, the more you will remember and the more successful you will be.

**GLOVES (Brass):** Gloves must be worn when handling brass instruments during rehearsal. This is to keep sweat from corroding the metal and preserving our instruments for as long as possible.

**HAT:** You must wear a hat to shade your face, eyes, and lips from the sun. Sunglasses are also highly suggested but not required.

**TENNIS SHOES / TRAINERS:** You will be moving at all rehearsals. Thus, tennis shoes are required at all times. Sandals, shower shoes, flip-flops, Vans, Converse, bare feet, etc are never acceptable.

**ATHLETIC CLOTHING:** You must wear clothing that will allow you to perform excessive movement such as sweats, shorts, t-shirts, etc. **NO JEANS!!!** Again, you will be moving at **ALL** rehearsals.

**WATER JUGS:** The approved water jug is a Coleman 1-Gallon Jug. No standard water bottles or half-gallon jugs. You **WILL** be drinking this much water per day.

# TUBA HARMONIC SERIES

The fundamental pitch of the tuba is determined by the length of the tube. Its characteristic tone quality is determined not only by the size of the opening in the tube, but also the amount of conical tubing or flare.

*Tuba*

Regardless of the length of tubing, a natural overtone series is produced when the air inside the tube is activated through the vibration of the lips. By changing the tension of the lips and air speed, the performer can move higher and lower within the harmonic series, without changing valves. Although the harmonic series is (in theory) endless, the chart below begins with the fundamental and continues through the 12th partial.

The 7th and 11th harmonic (partial) is so flat that it is unusable in the series (note the triangular shape of the note head). However, different brands of instruments and mouthpieces may produce varying results.

**Partials:** 1 2 3 4 5 6 7 8 9 10 11 12

Open 8vb----- (extremely flat) (extremely flat)

2 8vb----- (extremely flat) (extremely flat)

1 8vb----- (extremely flat) (extremely flat)

1-2 8vb----- (extremely flat) (extremely flat)

2-3 8vb----- (extremely flat) (extremely flat)

1-3 (4) 8vb----- (extremely flat) (extremely flat)

1-2-3 (2-4) 8vb----- (extremely flat) (extremely flat)

**WARNING!** It is **illegal** to photocopy or reproduce the Tuba Harmonic Series and Fingering Chart. Individual Tuba Fingering Charts are available for purchase from your favorite music dealer for use with your students. Please refer to the back cover of this manual for further information.

Individual Tuba Fingering Charts: Kjos Edition Number - W33BS

Notes on gray background are pedal tones.

	A $\sharp$	B $\flat$	B	C	C $\sharp$	D $\flat$	D	D $\sharp$	E $\flat$	E	F
BB $\flat$ Tuba	Open	1 2 3 4 or 2 3 (lip down)	1 2 3 4	1 3 4	2 3 4	1 2 4	2 4 or 1 2 3	4 or 1 3			
C Tuba	1	2	Open	1 2 3 4 or 2 3 (lip down)	1 2 3 4	1 3 4	2 3 4	1 2 4			

	F $\sharp$	G $\flat$	G	G $\sharp$	A $\flat$	A	A $\sharp$	B $\flat$	B	C	C $\sharp$	D $\flat$
BB $\flat$ Tuba	2 3	1 2 or 3	1	2	Open	2 4 or 1 2 3	4 or 1 3	2 3				
C Tuba	2 4	4	2 3	1 2 or 3	1	2	Open	2 4				

	D	D $\sharp$	E $\flat$	E	F	F $\sharp$	G $\flat$	G	G $\sharp$	A $\flat$	A
BB $\flat$ Tuba	1 2	1	2	Open	2 3	1 2	1	2			
C Tuba	4	2 3	1 2	1	2	Open	2 3	1 2			

	A $\sharp$	B $\flat$	B	C	C $\sharp$	D $\flat$	D	D $\sharp$	E $\flat$	E	F
BB $\flat$ Tuba	Open	1 2	1	2	Open	1	2	Open			
C Tuba	1	2	Open	1 2	1	2	Open	1			

	F $\sharp$	G $\flat$	G	G $\sharp$	A $\flat$	A	A $\sharp$	B $\flat$	B	C	C $\sharp$	D $\flat$
BB $\flat$ Tuba	2 3	1 2	1	2	Open	1 2	1 or Open	2				
C Tuba	2	Open	2 3	1 2	1	2	Open	1 2				

	D	D $\sharp$	E $\flat$	E	F	F $\sharp$	G $\flat$	G	G $\sharp$	A $\flat$	A	A $\sharp$	B $\flat$
BB $\flat$ Tuba	Open	1	2	Open	2 3	1 2	1	2	Open				
C Tuba	1 or Open	2	Open	1	2	Open	2 3	1 2	1				

(When more than one fingering is shown, the first is the most common.)

It is illegal to photocopy or reproduce this Tuba Fingering Chart.

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# Pitch Tendencies and Adjustments Tuba

Very Very Sharp	Very Sharp	Sharp

Use 2+4 valves and drop jaw	Use 4 <sup>th</sup> valve	Use 3 <sup>rd</sup> valve or pull 1 <sup>st</sup> valve slide
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Very Very Sharp	Very Sharp	Sharp

Use 2+4 valves and drop jaw	Use 4 <sup>th</sup> valve	Use 3 <sup>rd</sup> valve or pull 1 <sup>st</sup> valve slide
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Sharp	Flat	Flat

Use 3 <sup>rd</sup> valve or pull 1 <sup>st</sup> slide	Use 1+3 valves or 4 <sup>th</sup> valve	Use 1+2 valves
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Sharp	Very Sharp	Flat

Pull 1 <sup>st</sup> slide	Use 3 <sup>rd</sup> valve	Play open
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# AIR TECHNIQUE

Great breath control is an important key to maximizing one's ability to play a brass instrument. Keep the following concepts in mind while playing:

## TIMING OF THE BREATH

The timing of the breath is of the utmost importance. The breath will occur a FULL BEAT before the attack of the note. Tempo will dictate whether the "full beat" is interpreted as a full quarter breath, dotted quarter note, or half note. Failure to utilize this technique will result in significant timing problems. At certain tempos, we may employ a 2 count breath. A 2-Count breathe will be utilized on an as-needed basis.

## TAKE IN MORE AIR

To achieve maximum breath control, breathe deeply into the lungs. As the diaphragm (the strong, doughnut shaped, involuntary muscle under the ribs) pulls downward, room is created for the expansion of the lower back, abdomen, and ribs. The chest should then expand, once the capacity of the lower torso is reached. One should inhale to the point where the body feels relaxed and full of air.

## STAY RELAXED

To maintain a state of relaxation, the shoulders and the upper back must not be tense so that the breathing passage is never constricted while inhaling or exhaling. Keep the throat open so there is no resistance or audible friction. The only sound accompanying the inhale should be a very soft "hoe." When done correctly, one should feel a cold spot develop on the back of their throat.

## AIR IS IN or OUT

Air **NEVER** stops while playing. Air is either going in or out. Be mindful not to "cap" the breath. Capping occurs when the air is stopped after inhalation. Visualize the lungs as giant bellows that are constantly expanding and contracting.

## RELEASE POINTS

Releases should be approached through the initiation of a short inhalation. Using a contraction of the throat and jaw should never be used to release a note. Using the tongue to stop a note will rarely happen, unless the music calls for an articulation with a tongue-stop. Simply breathing inward on a predetermined count will create a defined release. A uniform timing of the breath will ensure uniform timing of the release throughout the entire ensemble.

## STAGGER BREATHE

To create a seamless sound, we utilize a technique called *stagger breathing*. By staggering the points of breathing throughout the ensemble, we can create an impenetrable wall of air or tone.

When performing air exercises with the instrument, it must be in the **correct playing position** while using the **correct playing embouchure**. As the air is blown through the instrument, the player should **use different valve combinations**. To challenge the performer to use more air in their playing, we will have the player press the valve's half way down to create more resistance – "half-valving."

**MAKE YOUR BEST SOUND \* ALWAYS LOOK YOUR BEST \* IT ONLY COUNTS ON THE MOVE**

There is a difference in the **speed** of air based on the **range** that is being played:

**Faster air for higher notes**  
**Slower air for lower notes**

There is also a difference in the **amount** of air when the player changes **volumes**:

**More air for the louder notes**  
**Less air for the softer notes**

Air exercises should have different volume levels as well as different ranges. A key point is to always have **CONSISTENT, MOVING** air.

Breathe and play. One's internal subdivision (mental metronome), the breath, and the beginning of the note are all one through-line. **TIMING STARTS WITH THE SUBDIVISION AND THE BREATH!** In other words, if we are to play together on beat one, we all need to take a breath on beat four; the accuracy of the timing on beat four will be unified if every member of the ensemble is subdividing in their head before (and while) they breathe.

Whenever an attack is early, it can usually be traced back to improper or poorly timed breathing. Late attacks typically result from "capped breaths" (stopped air between in and out) or poor timing. The performer must **ALWAYS** breathe and play with his or her feet to stay in time with the ensemble.

## **DO NOT:**

- Close the jaw upon the release
- Choke the air with your glottis (closing your throat)
- Use your tongue to stop a note (individuals who use the tongue to release are detectable by anyone who listens)

A clean release will ring for a moment even after the air has been released. Strive to make the note ring!

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## BREATHING EXERCISES

While performing the following exercises, the player should be concerned with filling up his or her lungs completely while maintaining relaxation. In normal everyday situations, humans use about 20-25% of their lung capacity. In playing a wind instrument, we strive to push that towards 90%.

The proper breath should allow an outward expansion of the midsection of the body. This is easiest to see in the stomach area, but the expansion should also be felt in the side as well as the back. Once the lung capacity is full, the focus should switch toward releasing all the air out. It is important to completely empty the lungs, because the lungs will start to store carbon dioxide. If the air is not released to its natural point, carbon dioxide will build up and begin to decrease the player's lung capacity – causing unnecessary stress, tension, dizziness, and exhaustion.

When you begin these exercises, take in as much air as possible, and release **ALL** of the air through the horn; again, **THIS IS ESSENTIAL**. You should concentrate on taking **ALL** of the counts to perform each portion of the exercise. If four counts are given to take in air, the player should take all counts to do so, then turn the air around, moving it out. This will take away any dead time that is similar to holding your breath. There should be no hitch in the breathing process. This will give the player the greatest efficiency with regards to the use of air when playing.

These exercises should be done with and without the instrument. In both cases, relaxation is a key factor towards producing a proper air-stream; the avoidance of tension will allow for a more effective use of the air-stream. It is important with all the exercises that you try to imitate the way you play in a performance situation as closely as possible. Simply playing through the exercises without a thought of application is not effective and will form bad habits.

There are many kinds of breathing exercises and techniques that we will utilize throughout the spring, summer, and fall (such as sizzling and the Breathing Gym®). All exercises will develop and improve your air support.

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# EMBOUCHURE DEVELOPMENT

Most professional brass musicians practice with the mouthpiece on a regular basis. The benefits of mouthpiece buzzing include: being able to isolate embouchure and tone production problems, improved aural skills, and less lip fatigue.

The first notes we will play every day will usually be on the mouthpiece. There will be much attention placed on how you produce that sound and its overall quality. The mouthpiece, embouchure, and air support combine to create the true instrument; the tubing of the brass instrument merely resonates your buzz. The quality of sound on the mouthpiece directly correlates to the player's tone quality when the mouthpiece is added to the instrument. Therefore, developing a dark and resonant sound on the mouthpiece should be a priority for all brass players.

There are numerous articles written about embouchure development for each of the instruments. We strongly recommend that you find and research these articles so that you may apply the information to your specific instrument. You should also continue to reinforce the embouchure work that you may have done with your private lesson instructor.

Remember, the first rule is **ALWAYS SOUND GOOD**. This requires focus on producing the most resonant, dark, and warm tone as possible.

Here are some basic embouchure rules that can be applied to all brass players:

The corners of the mouth need to be firm and strong. Close to unmovable.

- The middle of lips should be firm yet pliable. We cannot restrict airflow through the lips.
- The mouthpiece should be placed as close to perpendicular on the lips as possible – not too upstream or downstream.
- Both lips should have enough flesh on the mouthpiece to allow for a full and robust buzz.
- Always bring the mouthpiece to the same place on your lips.
- The jaw should always be open – especially in the lower register.
- The teeth are apart.

There should always be a dark, open "Oh" sound. If the sound is bright and tinny, open your jaw more and firm up the corners. Be sure to check that the mouthpiece is not forced against your lips. Again, be certain that the corners are locked and that there is **ALWAYS** excellent breath support.

In addition to warm-up exercises, mouthpiece playing will help improve accuracy discrepancies in the show music. **Every player in the ensemble should be able to play any part of the show music on his or her mouthpiece.**

## BENDING PITCHES

When practicing on your own, or even during a warm down, we **DO** recommend bending/sliding as a technique to gaining true flexibility. It is important that when you slide between pitches or when bending pitches, that your corners stay firm, and that the "M"-muscles in the upper lip stay engaged. The bending or sliding of the pitch lies solely on the rolling in-and-out of the bottom lip and the type of air being used.

**MAKE YOUR BEST SOUND \* ALWAYS LOOK YOUR BEST \* IT ONLY COUNTS ON THE MOVE**

When playing flexibility exercises on the mouthpiece, target the exact pitch. Sliding will cause intonation problems, along with serious timing problems, because players arrive at the pitch at different times. **WHEN WE HAVE MANY PLAYERS TRYING TO PLAY TOGETHER, WE NEED TO "NAIL" EVERY PITCH WITH NO SLIDING.**

You may be asking yourself, "How do I play large interval leaps without sliding?" Answer: **AIR VELOCITY** and tongue elevation while buzzing in the mouthpiece.

In other words, if a player's air moves at 50 mph for middle "C", then it should move at 100 mph for a high "C". Every pitch should have a specific air velocity that will help you find the pitch-center rapidly and efficiently. On the other side of this concept, do not slow down the air too much in the lower range, as the pitch will go flat and the tone will be thin.

## FOGHORN

"Foghorn" is an exercise that involves removing the tuning-slide of a brass instrument and inserting only one end of the slide back in. The difference between the foghorn and the mouthpiece is that with foghorn, there is more resistance and there are breaks between ranges. For example, going from a lower pitch to a middle pitch, you go through a break (similar to a slur). The following rules apply to foghorn:

- Breath attacks are used.
- Define the pitch you will play – every instrument will be different.
- Try to match that pitch every time you come back to it.
- Work to minimize any "shaking" in the sound.
- Work to minimize any "air-in-the-sound" in your tone quality.
- Use as much air as possible and play at a solid forte level at all times.
- No pressure should be placed on the embouchure.

## SINGING

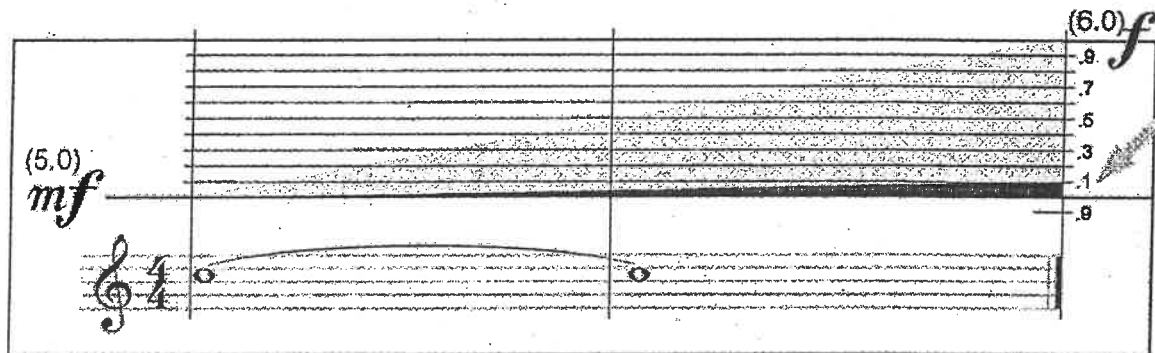
All instruments produce sound that imitates the human voice. Singing is an important tool for developing great ensemble tone quality and intonation. The brass section will sing frequently, and we will have a very serious approach to the technique of singing. The resonance and breath support necessary for singing are quite similar to proper brass playing. When singing, we use the "radio announcer" voice, the voice that seems to project a great distance. Here are some guidelines for all singing exercises:

- The throat should be open.
- The face should be relaxed.
- The mouth shape should be oval like – the longer part of the oval from nose to chin.
- The same approach to breathing, air support, and direction of air with your wind instrument, applies to singing.
- Everyone should always be listening to match the pitch.
- We will use different vowel sounds, including humming.
- We will train you to use audiation, and often check the pitch before, during, and after singing.
- We will work on and be able to sing every exercise in the technique book, chorales and show music.

**MAKE YOUR BEST SOUND \* ALWAYS LOOK YOUR BEST \* IT ONLY COUNTS ON THE MOVE**

## GOING TO .1 (POINT ONE)

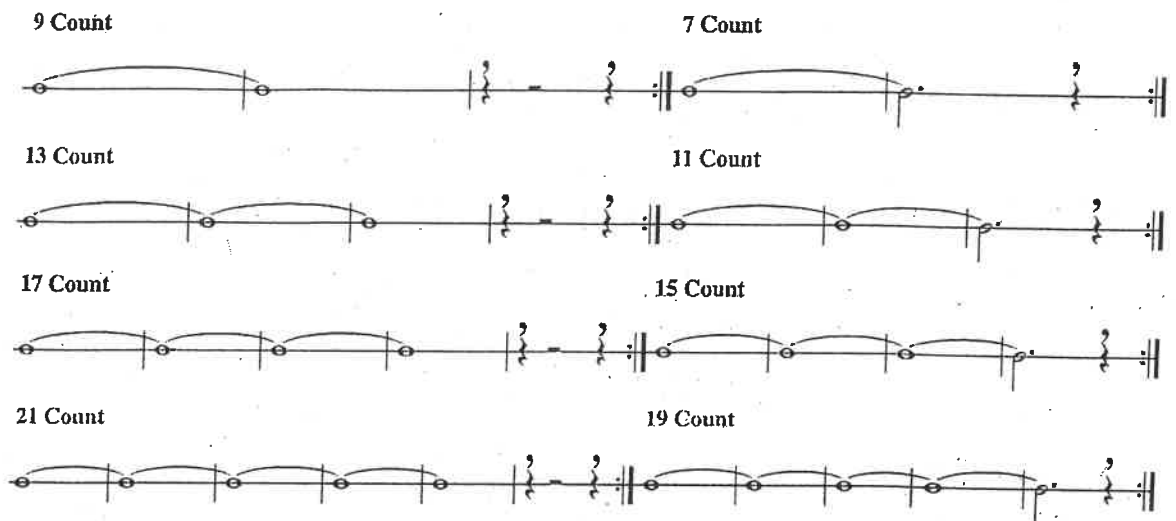
The concept of “**going to .1 (point one)**” was designed to prevent decay at the end of a note due lack of air support. Take a look at the example below – the “9-count tone”. The amount of space between *mezzo-forte* (5.0) and *forte* (6.0) is 1.0. If there were a crescendo assigned to this long tone, then the numerical value would be 5.0 to 6.0 (indicated by the gray zone). However, since there is no crescendo, the numerical value would be .15 (indicated by the blackzone). This creates consistent **support to the end of the note** without decay (falling to 4.9 or less).



## LONG TONES

There are several benefits from playing long tones every day. Along with mouthpieces work, this allows the muscles in your face to loosen up and helps you to become comfortable with instrument. Primarily, this is an opportunity for the player to concentrate solely on **tone quality, breath support, and intonation**. Without the distraction of rhythms and notes, the player can focus on playing in tone with his or her section and throughout the ensemble. Long tones are essential toward establishing a solid center of pitch for the warm-up. Balance and blend are key factors to this portion of the warm-up. Players should be listening for intonation, blend of tone, intensity, as well as quality of sound.

MAKE YOUR BEST SOUND \* ALWAYS LOOK YOUR BEST \* IT ONLY COUNTS ON THE MOVE



### Rules in Ensemble Breathing:

- Subdivide in your head
- Always move your feet in time
- Use a full count to breathe
- Full deep breaths (never shallow breaths)
- Support to the release
- Release by taking a short breath in (reverse the air)
- Air is going In or Out, one motion – never “cap” or pause the air

## FLOW STUDIES

The flow studies are another staple in the Mandarins fundamentals package. This exercise will allow the member to focus on creating the most smooth and characteristic sound possible. Based on the exercises of Vincent Cichowicz, these lines begin with small intervals and progress to larger intervals, allowing the performer to create a block sound that is even throughout all registers.

The exercise can be transposed down to work on lower register playing. In addition, by adding notes to the middle of each line, the upper register can be expanded.

The performer should strive to create the most resonant and even sound possible. This even sound occurs when all notes produced are equal in tone, volume, and energy. Dynamics can also be added to the exercise to place additional responsibilities on the player. However, in the initial stages, the performer should work to create a constant and unchanging sound with no dynamic change.

MAKE YOUR BEST SOUND \* ALWAYS LOOK YOUR BEST \* IT ONLY COUNTS ON THE MOVE

## **LIP SLURS / FLEXIBILITY**

Lip slurs play a huge part in the development of any brass player's flexibility. The ability to move fluidly from partial to partial while maintaining accurate pitch is essential. Providing a consistent air stream throughout the musical line will allow the player to attain this fluidity. The exercise should not be thought of merely as an exercise, but rather as a musical phrase. Each musical line should have purpose, movement, and arrive at a destination.

With the Flexibility Exercises remember these important guidelines:

- Always take a full count breath before you play
- Always take a step out on the first note
- Every double bar line is a step out
- Down 3 half steps (1&2) and back up
- Finish the exercise by halting your feet and sustaining the last note
  - Low C/Bb for "G-C-C", "5-note", and "Big Mountains"
  - Middle G/F for "2-note", "3-note", "4-note", and "Little Hills"
  - Middle C/Bb for "7-down"

**MAKE YOUR BEST SOUND \* ALWAYS LOOK YOUR BEST \* IT ONLY COUNTS ON THE MOVE**

# I Warm-Up

*tuba*

## 1. Stretching and Breathing

## 2. Descending Intervals



## 3. Ascending Intervals



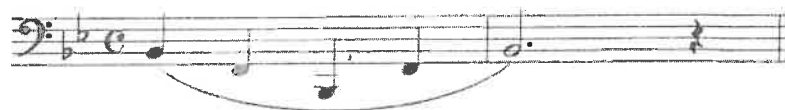
## 4. Whole Tone Scale



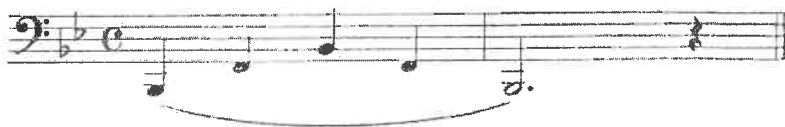




11a. (0, 2, 1, 12, 23, 13, 123)



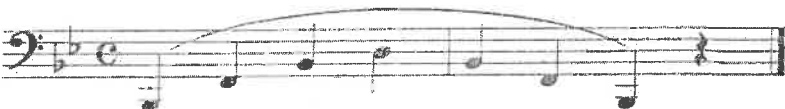
11b.



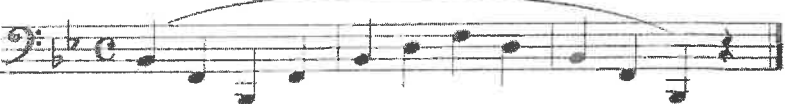
11c.



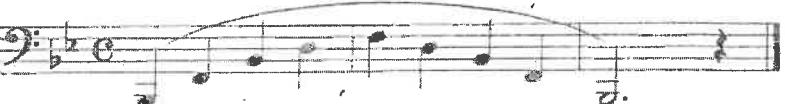
11d.



11e.



11f.



11g.



11h.



4

## 12. Five Step Scale Study

Note: Articulations should vary daily.

a Play 3 times

b Play 3 times

c Play 3 times

d Play 3 times

e Play 3 times

## 13. Dynamics

a

b

c

d

ppp

fff

fff

ppp

fff

to niente

ppp

open release - make it ring

fff

## 14. B, B, and T (Balance, Blend, and Tuning)

$\text{♩} = 60$

## 15. Chord Progression

$\text{♩} = 64$

4

# Tuba

Vermillion

5

Goals: Resonate sound on every note, Smooth note changes

1. Keep the face still
2. keep the same syllable for every note
3. Keep the same tone color on every note

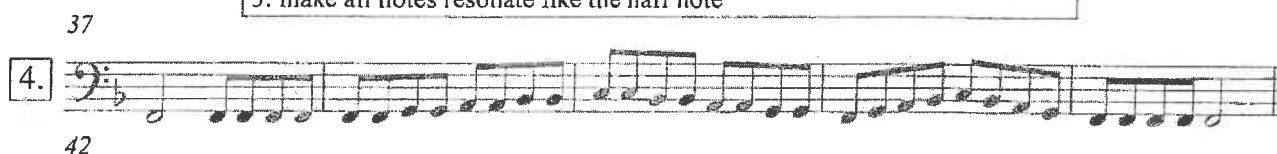
Hint: Make the moving parts feel and sound like the sustained notes

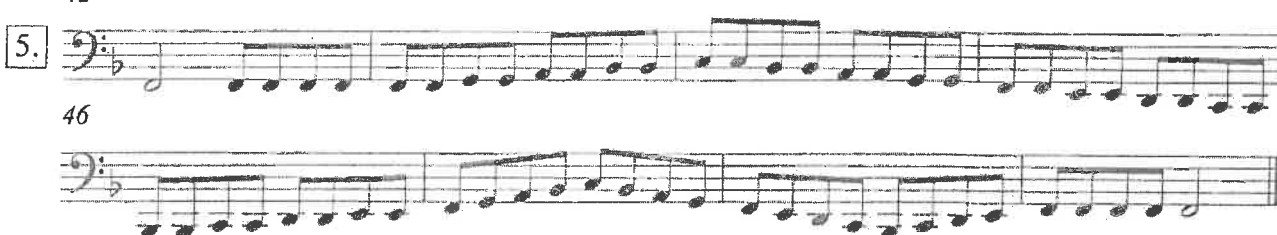
1. 

2. 

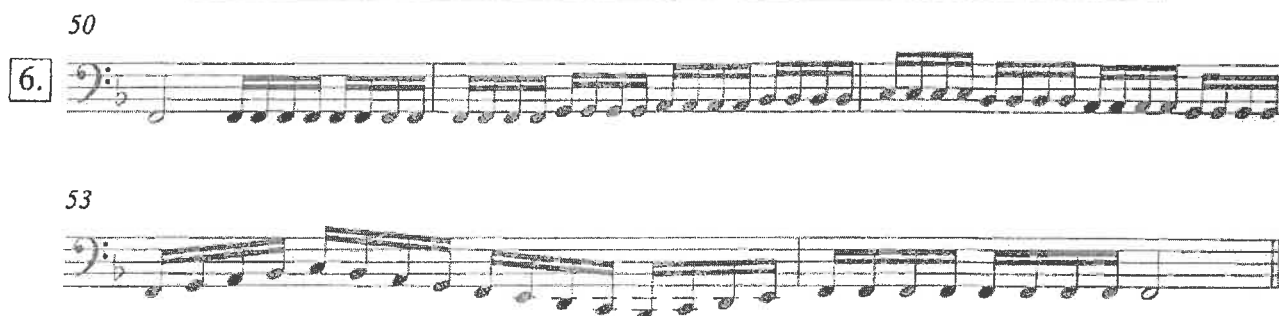
Goals: Consistent Articulation, Consistent tone (resonance)

1. tongue in the same place with the same strength
2. use the same "dah" syllable on every note
3. make all notes resonate like the half note

4. 

5. 

Hint: The faster that you have to tongue, the more legato the articulation must be.

6. 

6

Tuba

Ex

Vermillion

6

Goals: Resonate sound on every note, Smooth note changes

1. Keep the face still □□□
2. keep the same syllable for every note □
3. Keep the same tone color on every note

Hint: Make the moving parts feel and sound like the sustained notes

1.   
9  
16  
21

2.   
27

3.   
33

Goals: Consistent Articulation, Consistent tone (resonance)

1. tongue in the same place with the same strength □□□
2. use the same "dah" syllable on every note
3. make all notes resonate like the half note

37

4.   
42

5.   
46



Hint: The faster that you have to tongue, the more legato the articulation must be.

50

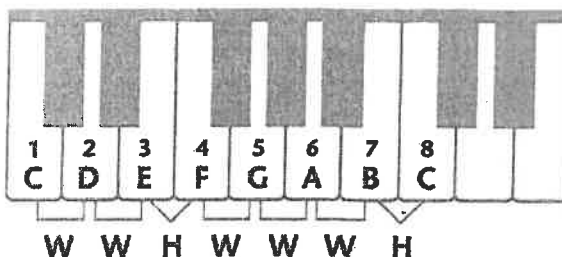
6.   
53



7

**LESSON 13: MAJOR SCALES**

- Whole steps and half steps can be combined to create **major scales**.
- Look at the C major scale shown on the piano keyboard to the right. Notice the following characteristics of the scale.



- There are eight notes in the scale. The first note and the last note (1 and 8) have the same letter name and are an octave apart. The first note gives the scale its name.
  - The scale is made entirely of whole steps ( ) with the exception of two half steps ( ) which appear between notes 3 and 4 and again between notes 7 and 8.
  - The letter names are placed in alphabetical order. Each letter name from the musical alphabet is used only once (with the exception of 1 and 8 which is doubled).
- If you were to play the scale shown above you would hear the distinct sound of a major scale.
  - A major scale can be played using any key on the piano as a starting note if the requirements listed above are met. Special attention must be given to the specific pattern of whole and half steps.

whole step

whole step

half step

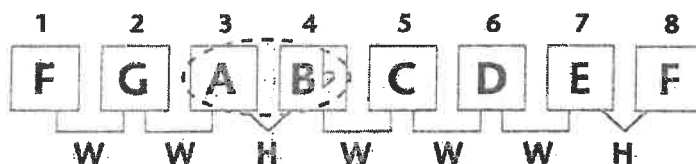
whole step

whole step

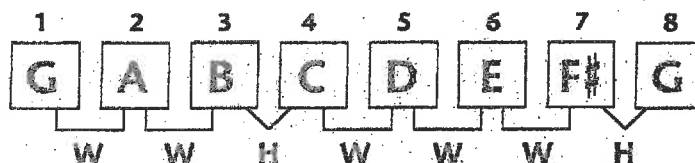
whole step

half step

- Look at the F to F pattern below. It meets all of the requirements for a major scale, but one. The pattern of whole steps and half steps is incorrect. The distance from A to B is a whole step. In order to maintain the major scale pattern, B must be lowered to B $\flat$ .



- Look at the G major scale below. F must be raised to F $\sharp$  for the required major scale pattern.

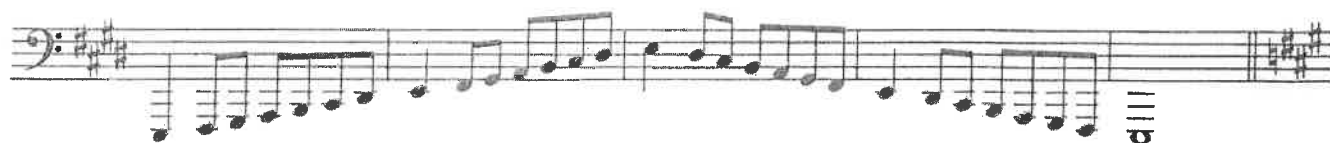
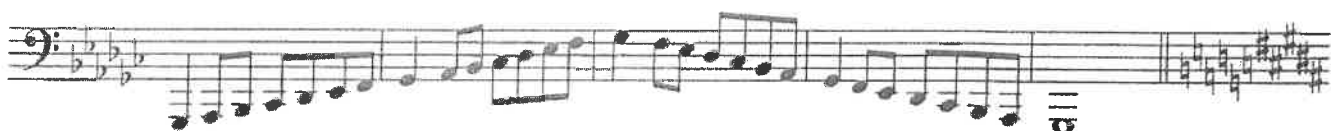
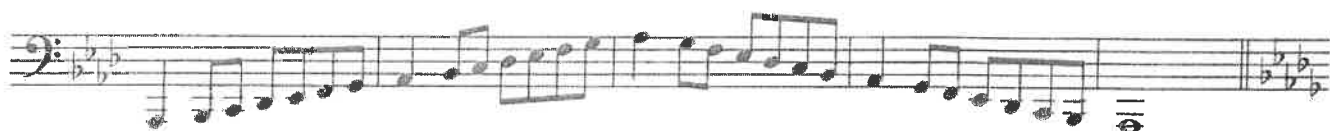
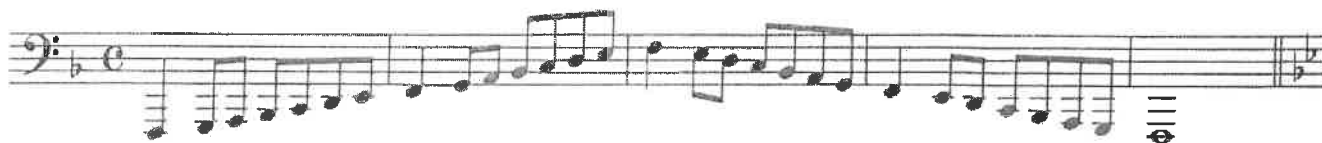


- Scales can be written ascending (going up) and descending (going down). Descending scales are easy to write. Write the ascending scale and reverse the order of notes (8, 7, 6, 5, 4, 3, 2, 1).

**PROCEDURE FOR WRITING MAJOR SCALES (STEP METHOD)**

- Write the basic alphabet pattern for the scale requested.
- Be sure to begin and end with the same letter name. (If the scale begins on E $\flat$ , it must also end on E $\flat$ .)
- Check the step pattern one note at a time adding sharps or flats as necessary to maintain the major scale pattern. (There will never be a mixture of sharps and flats in a major scale.)

## Tuba Scales 11-12

 $\text{♩} = 120$ 

## Tuba Scales 11/12

The image displays six staves of musical notation for tuba scales. Each staff begins with a bass clef and a key signature of one sharp (F#). The scales are as follows:

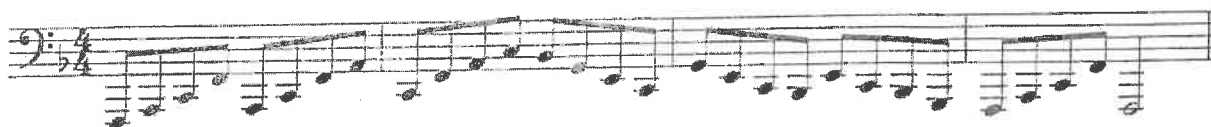
- Staff 1: Ascending and descending scale in F# major, starting on F#4 and ending on F#5.
- Staff 2: Ascending and descending scale in G major, starting on G4 and ending on G5.
- Staff 3: Ascending and descending scale in A major, starting on A4 and ending on A5.
- Staff 4: Ascending and descending scale in B major, starting on B4 and ending on B5.
- Staff 5: Ascending and descending scale in C major, starting on C4 and ending on C5.
- Staff 6: Ascending and descending scale in D major, starting on D4 and ending on D5.

Each staff includes a repeat sign at the end, indicating the scale is to be played multiple times.

Tuba

# 10 -12 F Technical Studies

## 1. Tonic/Dominant 7th Arpeggio



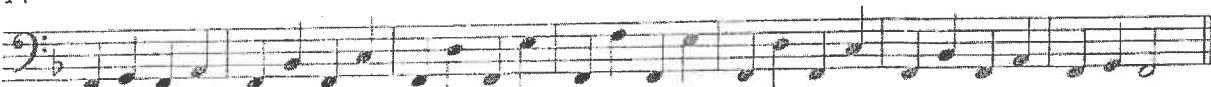
## 5 2. Scale in Thirds



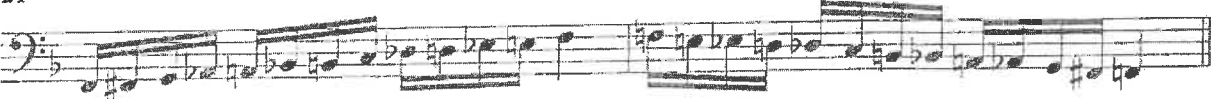
## 9 3. Clark Study



## 14 4. Intervals



## 21 5. Chromatic



Natural Minor - play the notes in the key signature  
 Harmonic Minor - raise the 7th scale degree going up and down  
 Melodic Minor - raise the 6th and 7th going up, revert to key signature going down

## 23 6. Natural/Harmonic/Melodic Minor



## 26 7. Melodic Minor Scale in Thirds



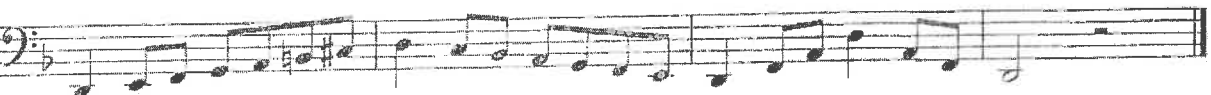
## 30 8. Fully Diminished 7th Arpeggio



## 36 9. Major and Melodic Minor Scale



40





Tuba

# 10 -12 Bb Technical Studies

10

## 1. Tonic/Dominant 7th Arpeggio



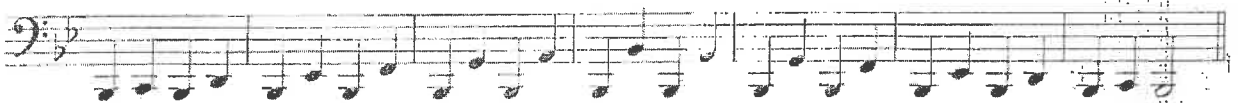
## 5 2. Scale in Thirds



## 9 3. Clark Study



## 14 4. Intervals



## 21 5. Chromatic

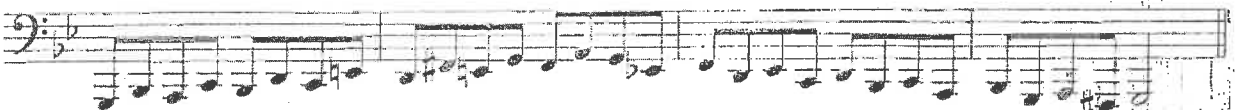


Natural Minor - play the notes in the key signature  
Harmonic Minor - raise the 7th scale degree going up and down  
Melodic Minor - raise the 6th and 7th going up, revert to key signature going down

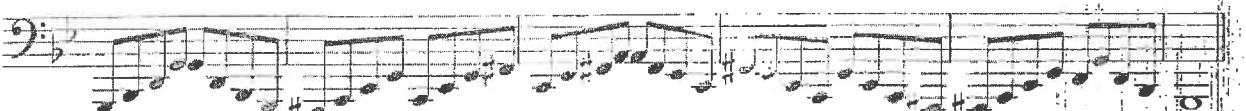
## 23 6. Natural/Harmonic/Melodic Minor



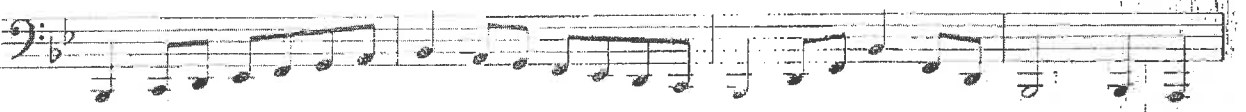
## 26 7. Melodic Minor Scale in Thirds



## 30 8. Fully Diminished 7th Arpeggio



## 36 9. Major and Melodic Minor Scale



40



12



Tuba

# 10 -12 Ab Technical Studies

## 1. Tonic/Dominant 7th Arpeggio



## 5 2. Scale in Thirds



## 9 3. Clark Study



## 14 4. Intervals



## 21 5. Chromatic

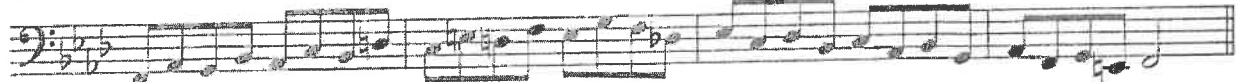


Natural Minor -	play the notes in the key signature
Harmonic Minor -	raise the 7th scale degree going up and down
Melodic Minor -	raise the 6th and 7th going up, revert to key signature going down

## 23 6. Natural/Harmonic/Melodic Minor



## 26 7. Melodic Minor Scale in Thirds



## 30 8. Fully Diminished 7th Arpeggio



## 36 9. Major and Melodic Minor Scale



## PEDAL TONES

Pedal tones are an important part of our brass program and should be a part of every brass player's daily ritual. When playing pedals, listen carefully to the pitch. Make sure that your corners stay somewhat firm in the pedal register.

The effective use of pedals in your warm-down and practice routine will:

- Soothe your embouchure.
- Provide greater command of your instrument.
- Aid your attack confidence.
- Develop better lip vibration.
- Create a bigger sound in all registers.
- Develop endurance.

## STAGGER BREATHING

When listening to long sustained chords from a brass ensemble, you will notice that the best ensembles sustain these chords without holes in the sound. This "wall of sound" is created by utilizing a technique called stagger breathing. Essentially the wall of sound is created by each performer in the brass ensemble following this simple process:

**1. Know when you are going to breathe & commit to the breathing.**

- i. *You must commit to the breath even if you are not running out of air.*

**2. Don't breathe at the same time as the person(s) next to you.**

- i. *2 or more people in the same proximity breathing at the same time creates holes in the sound.*

**3. Fade out.**

- i. *A rapid, one beat decrescendo.*
- ii. *Don't allow the pitch to drift out of tune.*
- iii. *Don't allow your tone to change.*

**4. Breathe.**

- i. *One beat to take in a full breath.*
- ii. *The breath should immediately follow the decrescendo; no gaps between the end of the decrescendo and the full breath in.*

**5. Fade back in.**

- i. *A rapid, one beat crescendo from a niente – no gaps between the end of the breath and the beginning of the crescendo.*

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- ii. Do not rearticulate the front of the note – "ah" articulation.
- iii. Be in-tune and in-tone all the way through the crescendo

13A

## STAGGER BREATHING – High Brass

"Stagger Breathing"

The musical score for High Brass consists of four staves. Each staff contains two measures of music. The first measure of each staff features a crescendo (marked *f*) followed by a decrescendo (marked *f*), with the label "AIR ATTACK" positioned above the staff. The second measure of each staff features a decrescendo (marked *f*) followed by a crescendo (marked *f*), also with the label "AIR ATTACK" above. The fourth staff concludes with a final note marked *f* and the label "STAGGER BREATH" above it.

## STAGGER BREATHING – Baritones

"Stagger Breathing"

The musical score for Baritones consists of four staves. Each staff contains two measures of music. The first measure of each staff features a crescendo (marked *f*) followed by a decrescendo (marked *f*), with the label "AIR ATTACK" positioned above the staff. The second measure of each staff features a decrescendo (marked *f*) followed by a crescendo (marked *f*), also with the label "AIR ATTACK" above. The fourth staff concludes with a final note marked *f* and the label "STAGGER BREATH" above it.

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The image displays four staves of musical notation for a 'Blagger Breathing' exercise. Each staff begins with a bass clef and a key signature of one flat (B-flat). The notation includes various musical symbols such as notes, rests, and dynamic markings like *f* (forte). Above the staves, specific breathing techniques are indicated: 'AIR ATTACK' is written above the first three staves, and 'STAGGER BREATH' is written above the fourth staff. The notation shows a sequence of notes and rests, with some notes marked with *f* and others with a wedge symbol, indicating a specific breathing or articulation technique. The exercise is divided into two measures by a double bar line on each staff.

When playing all musical passages, we recommend pressing the valves down with authority, while keeping a relaxed feel in the wrists and fingers. Do not lose control of the valve on the way back up. The fingers should be rounded and the tips should press the valve straight up and down. If a player pushes the valves on an angle, the valves will stick and make technical passages unplayable.

Taken from the Herbert L. Clarke technique book, this scale pattern can be used for multiple purposes. The exercise can be used for tone development, finger dexterity improvement, overall flexibility, range development, articulation work, and various combinations. As with every exercise, high-level tone production must be constant, regardless of which performance aspect is being addressed.

32

**FLOW STUDIES – Tubas**

Eight staves of musical notation for tuba flow studies, numbered 1 through 8. Each staff begins with a bass clef, a key signature of two flats (B-flat and E-flat), and a 4/4 time signature. The music consists of a continuous melodic line with various note values including quarter, eighth, and sixteenth notes, as well as rests. A large, sweeping slur is drawn over each staff, indicating a continuous flow. The final note of each staff is a double bar line with a repeat sign. The staves are arranged vertically, with the first staff at the top and the eighth at the bottom.

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Flute

Clarinet  
Tenor Sax

Alto/Bari Sax

Trumpet  
Mellophone

Baritone  
Euphonium

Tuba

F

Fl.

Clar/Tenor

Alto/Bari

Tpt/Mel

Bar/Euph

Tuba



Bb

This musical score is for a piece titled "Noodle-Doodles" on page 2 of a manuscript. The score is divided into two systems, each containing six staves for different instruments. The key signature is B-flat major, indicated by a "Bb" at the start of the first system. The instruments are: Flute (Fl.), Clarinet/Tenor (Clar/Tenor), Alto/Bass (Alto/Bari), Trumpet/Melodion (Tpt/Mel), Baritone/Euphonium (Bar/Euph), and Tuba. The music is written in 4/4 time. The first system consists of six measures, and the second system also consists of six measures. The notation includes various note values, rests, and accidentals (sharps, flats, and naturals) to indicate pitch and rhythm. The Tuba part is written in the bass clef, while the other instruments are in the treble clef. The score is a full orchestration of the piece, showing the interplay between the different instruments.

Fl.

Clar/Tenor

Alto/Bari

Tpt/Mel

Bar/Euph

Tuba

Fl.

Clar/Tenor

Alto/Bari

Tpt/Mel

Bar/Euph

Tuba

**Eb**

Fl.

Clar/Tenor

Alto/Bari

Tpt/Mel

Bar/Euph

Tuba

This musical score system features six staves for different instruments: Flute (Fl.), Clarinet/Tenor (Clar/Tenor), Alto/Bass (Alto/Bari), Trumpet/Mellophone (Tpt/Mel), Baritone/Euphonium (Bar/Euph), and Tuba. The key signature is one flat (Bb), and the time signature is 4/4. The Flute part begins with a treble clef and a key signature change to one flat. The other instruments use their standard clefs. The music consists of continuous eighth-note patterns across all staves, with some instruments having occasional rests or different rhythmic groupings.

Fl.

Clar/Tenor

Alto/Bari

Tpt/Mel

Bar/Euph

Tuba

This musical score system continues the piece with the same six instruments. The notation continues with eighth-note patterns. The Flute part has a key signature change to one flat. The other instruments continue with their respective parts. The system concludes with a final measure where several instruments have whole notes or rests.

Ab

Fl.

Clar/Tenor

Alto/Bari

Tpt/Mel

Bar/Euph

Tuba

Fl.

Clar/Tenor

Alto/Bari

Tpt/Mel

Bar/Euph

Tuba

Db

Fl.

Clar/Tenor

Alto/Bari

Tpt/Mel

Bar/Euph

Tuba

Fl.

Clar/Tenor

Alto/Bari

Tpt/Mel

Bar/Euph

Tuba

## ARTICULATION & STYLE

The relationship and balance between the tongue and the air stream is the key to proper articulation. It is important to understand that the tongue cannot articulate properly if there is not enough air support. It is also important to know that the clarity of the articulation should not be hindered by tempo, technique, note length, volume, or range.

Articulation should be executed with no explosion in the attack. Every note should be started with the sound "dAh" in mind (notice the lowercase *d* and the uppercase *A*). Each player should strive for less tongue in the sound and focus on providing more tone. Remember, **THE AIR STREAM SETS THE VIBRATION INTO ACTION, NOT THE TONGUE!**

Articulation is the front of the note. Style is the back of the note.

With the exercise below, you should practice not only with staccato, but also with legato, accent, accent legato, accent staccato, and marcato.


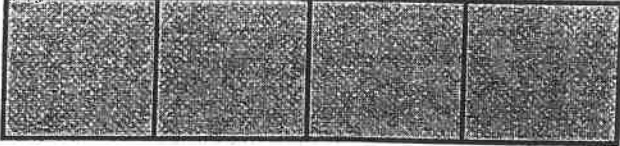

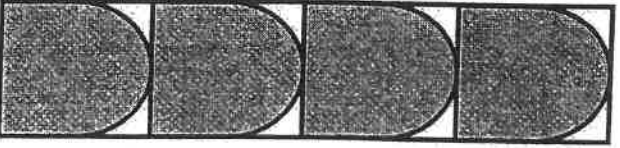

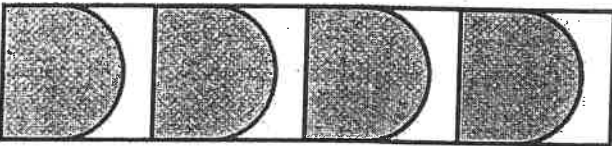

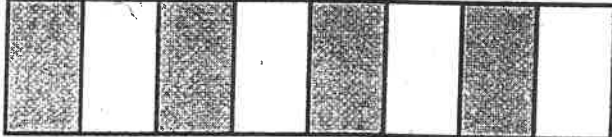

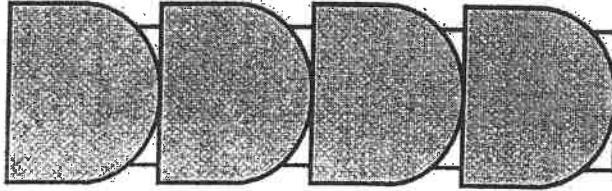

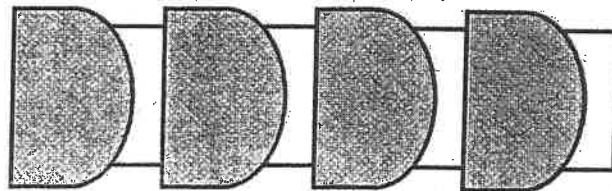

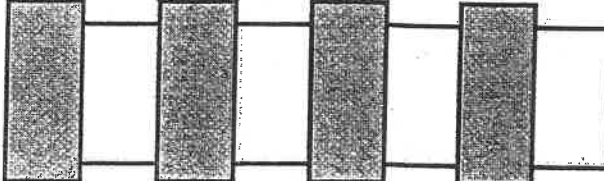
Always step out on the first note  
Every double-bar line is a step out  
Down 3 half steps (1&2) and back up  
Finish the exercises by halting feet and sustaining concert Bb

8 Staccato Eighth Notes



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# ARTICULATION VISUALIZATION

STYLE	NOTE SYMBOL	VISUALIZATION
Connected (Legato)		
<i>def.</i> – There is no decay and the notes touch		
Long Lifted (Legato Accented)		
<i>def.</i> – There is a slight decay and the notes touch		
Lifted		
<i>def.</i> – There is a slight decay and a small space		
Detached (Staccato)		
<i>def.</i> – There is no decay and the note length is 1/2 the note it is attached to		
Accented		
<i>def.</i> – beginning of the note is slightly louder, slight decay and the notes touch		
Lifted Accent		
<i>def.</i> – beginning of the note is slightly louder, slight decay and a small space		
Roof-Top Accent		

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# Articulation Station

Score

♩ = 90-140

	100% length	100% length with decay	95% length	50% length
Flute				
Clarinet in B♭				
Bass Clarinet				
Alto Sax				
Tenor Sax				
Baritone Sax				
Trumpet in B♭				
Mellophone				
Baritone (B.C.)				
Tuba				

Fl.  
B♭ Cl.  
B. Cl.  
A. Sx.  
T. Sx.  
B. Sx.  
B♭ Tpt.  
Mello.  
Bar.  
Tuba



## Double Tonguing

183

Hoffman

①



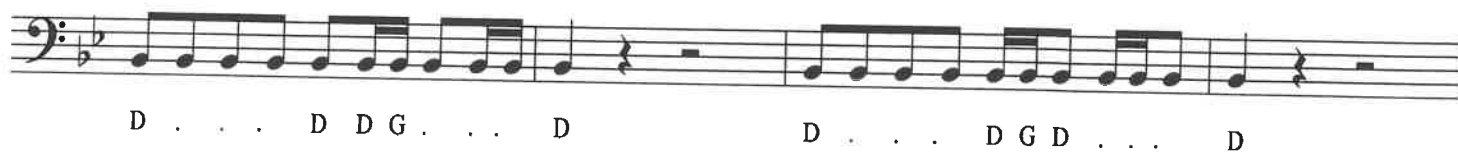
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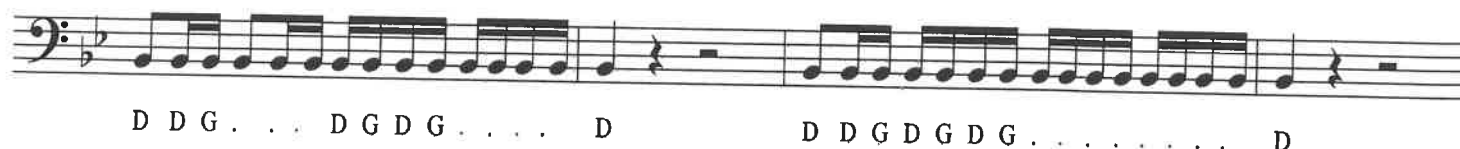
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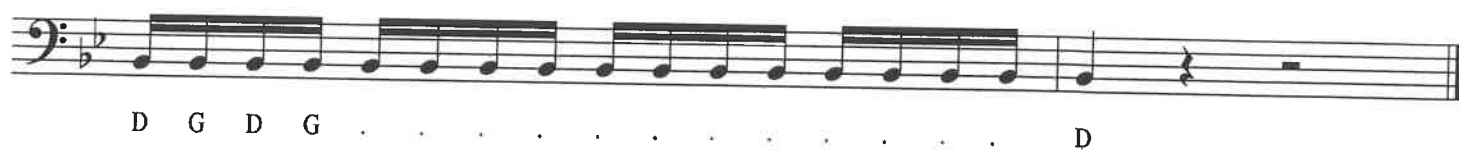


⑧

⑨



⑩



## BALANCE / BLEND

The first criterion toward achieving great balance and blend is perfect intonation. If one note in a chord is played out of tune, then balance cannot be achieved properly. The second criterion is to always know who has the moving line, and who has the melody. This is achieved by keeping your ears aware of the parts being played around you. The third criterion is a combination of balance, support, and playing in a manner befitting a soloist. Each part in an ensemble is unique in its own way. We as good brass players know when to support a given line, create balance within that line, or project an important line with a full supported sound.

When trying to achieve good balance and blend:

Ask yourself, **"Am I in tune with the ensemble?"** First listen to intonation in your section and then branch out to other sections, always keeping in mind that you should listen down to the bass voice. If you are supporting a moving line, ask yourself, **"Am I playing louder than that line?"** Finally, ask yourself, **"Am I playing within the other sounds, balancing my sound against it with a rich, supported, full bodied tone?"**

Balance and Blend requires the performer to listen very closely. There are 3 levels of listening required if you are to become a greatly balanced brass section:

**LEVEL ONE LISTENING** focuses on the sounds, volume, style, etc of his or herself. Self-awareness is an important key toward higher level playing.

**LEVEL TWO LISTENING** focuses on the sounds, volume, style, etc of the other members in each respective section.

**LEVEL THREE LISTENING** focuses on the sounds, volume, style, etc of all instruments in the ensemble.

## BOPPING

Bopping is a technique that is used to improve timing and perfect uniform articulation and tone production. Bopping is executed by reducing every note down to a staccato eighth note.

Additional rules to bopping are as follows:

- Everything is performed at the dynamic of p (piano). Unless dictated by a staff member.
- Slurred passages are played full duration to the end of the slur.
- Tied notes are to articulated and not sustained. The tied note will not be played after the first articulation.
- Make sure the throat is open and relaxed.
- No "Dit" articulation should be heard.
- Only "dAAh." Sounds.
- Keep all notes open-ended.

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## SHHS Tuning Sequence

20

## Brass

Trumpet in B $\flat$

Mellophone

Baritone (B.C.)

Tuba

7

B $\flat$  Tpt.

Mello.

Bar.

Tuba

THE CHORUS

7

Tuba

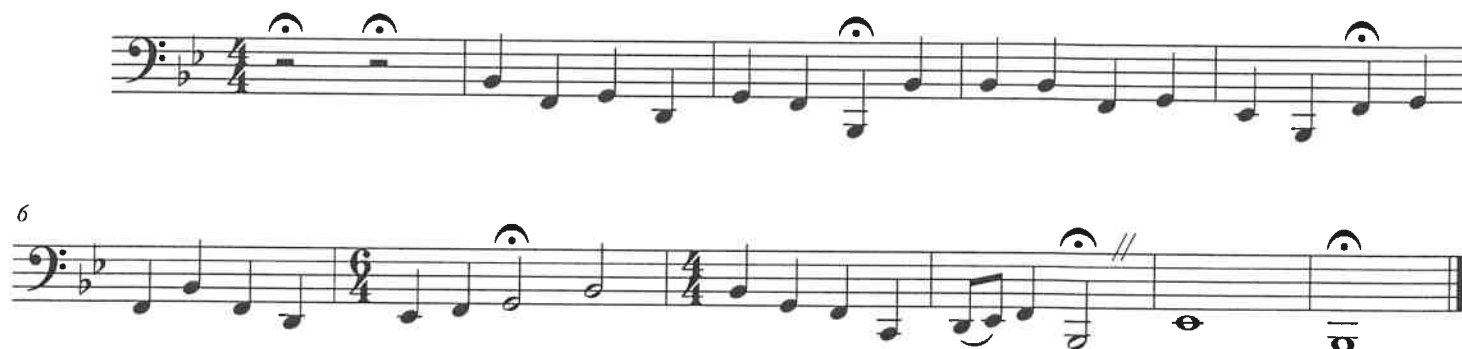
21

# Doxology

for the SHHS Marching Hilltoppers

traditional  
arr. H. A. Hoffman IV

Freely



Tuba.

# Jupiter

Gustav Holst  
arr. H. A. Hoffman IV

♩ = 70

**A**

*p*

*p*

**B**

9

18

$$mf$$

**C**

 $\mathcal{F}$  $\text{ff}$ 

33

*pp*