BEGINNING BRASS: ESTABLISHING FOUNDATIONS FOR SUCCESS

David Brandon, Duncanville High School, Duncanville, TX

INSTRUMENT SELECTION

The goal during the instrument selection process is to match the student with an instrument they are physically suited to as well as one they are interested in playing. You may need to "sell" students on instruments they might not have originally considered if you know it's one they have the highest chance of succeeding on. Most kids who drop out at the end of beginner band did not feel successful on their instrument. Set them up for success at the very beginning by getting them on the right instrument.

While there are always exceptions to the rules, here are a few things to consider when selecting brass players:

- Grades—check with counselors and teachers or get a printout of the last grading period for all potential band students. Horn players should be A/B students but try to get A/B kids in every section.
- Personality—check with teachers. Try to get outgoing kids on every instrument.
- Aural Skills—ask students to identify high vs. low pitches, sing back pitches, etc. Horn and trombone players need to be able to distinguish between pitches from the very beginning. A background in piano is a plus.
- Lip Size and Shape—in general, thinner lips for horn and trumpet/thicker lips for low brass—no pronounced "cupid's bow" or teardrop for horn and trumpet. Look for an even line formed by the top and bottom lips
- Teeth—relatively even for horn and trumpet, not as important for low brass
- Jaw—an under bite may cause problems on most brass instruments but especially horn and trumpet
- Body Size—will they be able to handle the instrument

If you are able to conduct individual interviews, give students a quick lesson on embouchure and making sound on the mouthpiece. It's easier to convince students to pick the correct instrument if you can demonstrate how much easier they can produce a good sound on one mouthpiece over another.

If you start beginners in the 4^{th} or 5^{th} grades and/or you don't see them everyday, you might consider starting only trumpets and baritones then switching kids to the other instruments as they mature physically or become more independent learners. This will allow you to focus more time on more of the students at the beginning. You might also consider a beginner summer program with like-instrument instruction.

CLASS STRUCTURE

The ideal beginner class schedule is like-instrument classes. The next best thing is trumpets and horns together, baritones and tubas together and trombones by themselves. A mixed brass class is preferable to a heterogeneous class.

Most beginner books come with a special book for horn with the option of playing at pitch with the rest of the instruments or in fourths (same note name as trumpet). It's really not hard to get the horns to hear notes played in fourths (if they have the necessary aural skills) and it puts them in a range perfect for beginners. If your beginner book does not have a

special horn book then have them use trumpet books with a horn fingering chart stapled over the trumpet chart.

My preferred classroom set-up is a single arc with plenty of room side to side for students to put their instrument (still in the case) to the side of their chair. I also like to teach from a rolling chair that does not have arms to allow me to be on their level and to quickly move from student to student. No matter what set up you have to use, make sure there is plenty of room side to side and front to back for proper student posture and for you to maneuver easily to each student.

I like to teach on a "need to know" basis and try to talk in terms of desired results rather than lengthy explanations. I demonstrate what I want them to do first then have them try. If some students need more explanation then I may either provide it myself or ask the class guided questions resulting in another explanation of the technique.

POSTURE AND BREATHING

Basic posture is very simple yet vital to proper breathing and playing position. Students should sit toward the front edge of the chair (back off the chair back—except tubas), spine straight, shoulders relaxed and head erect. With their feet on the floor they should be able to easily stand up without any extra effort.

Proper breathing is simply moving lots of air in and out of the body as efficiently as possible. Demonstrate to the class then have them copy. Look for the following things:

- Breathing through the mouth—not the nose
- Stomach area expands first then the chest—like filling up a glass with water
- Shoulders may rise slightly but not abnormally
- Air should move in and out—NO HOLDING IN AIR!!!!! Think of a swing
- Silent air in and out—extra noise means something is getting in the way of the air stream
- Tension caused by taking in too much air
- Squeezing the abdominal muscles while exhaling and closing off the throat

Breathing Exercises:

- In ____; Out ____ Blow to a target (focus with eyes)
- Blow up balloons in one breath
- Blow against a single sheet of paper held about 6 inches from your nose
- "Ripping" Exercise: Place fingers vertically in front of your mouth. Breathe with energy trying to create the "ripping" sound
- "OH-UP"—breathe in low thing "OH" and continue with "UP to fill the upper chest

Read *Arnold Jacobs: The Legacy of a Master,* Edited and Collected by M. Dee Stewart for a complete understanding of proper breathing for wind players.

EMBOUCHURE

It is very important for each student to have a mirror handy so they can see if they are forming their embouchure correctly.

- Start with “natural face”—lips lightly together, jaw slightly dropped. Have students look at themselves in the mirror, noting where their corners are
- Form the embouchure—pronounce a sophisticated “m” or “poo” or think about spitting something off the tip of their tongue—corners firm slightly but stay in the same place as “natural face”
- Take a breath and blow air through the embouchure

Look for the following things:

- Equal amounts of red showing from top and bottom lips on the sides—this varies due to different lip/jaw formations—most will have to move jaw forward
- No “shiny” parts of the lips—keep the wet part of the lips against the gums (bottom lip “stands up” against the bottom teeth)
- Oval aperture—taller aperture for low brass players
- Chin flattens to make the “brass players face”—get them to look like the pictures in your brass pedagogy book from college
- Teeth apart—about the width of their pinky or end of their mouthpiece shank
- Tongue out of the way of the air—“wispy” sounds or hiss means the tongue is too high
- Center of the lips are soft

Practice the breathing exercise “In for ____; Out for ____” blowing air through the formed embouchure. Have students blow to the center of their palms a few inches in front of their lips. The air stream should be focused. Then blow air with the same focus across the room to a target.

MOUTHPIECE PLACEMENT AND FIRST SOUNDS

When most of the class can demonstrate proper posture, breathing, embouchure formation and any music reading skills taught, it is time to move on to making sound on the mouthpieces. Work with one student at a time to make sure the mouthpiece is placed properly and the student learns the correct “feel” from the beginning. Throughout this process ask the class to describe sounds being produced and to prescribe possible fixes for ones they don’t like. The goal is to get them to learn to recognize good sounds and how to diagnose and fix poor sounds so they can then teach themselves at home—also known as practicing. My procedure is as follows:

1. Sit with correct posture
2. Lick lips so they are very moist
3. Blow air through embouchure—if a shallow breath is taken have them start all over
4. Place the mouthpiece on the embouchure—THEY CHANGE NOTHING and no matter what comes out (if anything) they must keep air moving
    - Place the mouthpiece centered horizontally—this may vary depending on where their natural aperture forms
    - Vertical placement varies by instrument
        a. Trumpet—start with 50/50 (there is much controversy over trumpet mp placement)
        b. Horn—MUST be 2/3’s upper, 1/3 lower
        c. Low Brass—50/50 to 2/3’s upper, 1/3 lower (you may need to close half of the tuba shank to provide resistance)

Almost all students will have run out of breath so this is the time to teach them to breathe through the corners of their mouth. Make sure the embouchure reforms correctly after breathing and that they don't hold air inside their body. Start all over if necessary.

Possible Outcomes:

- No Buzz—this is ok—if air speed is slow have them blow the air farther, if lips are too far apart bring them slightly more together, if lips are to hard tell them to soften
- Tight and pinched buzz—start all over and ask them to soften the lips and try to just blow air through the mouthpiece. Gradually bring the lips closer together until a buzz is achieved
- Tubby "wet" sounding buzz—they are buzzing on the inside shiny red portion of the lips—think more pronounced "poo" and keep the inside flesh touching the teeth and gums
- Puffy cheeks—go back to embouchure only while blowing a focused stream of air. Place the mouthpiece on the embouchure—keep air blowing to the center of the mouthpiece and gradually bring the lips closer together until they vibrate
- Solid buzz—great—have them do it again several times and hold for a long time (without squeezing or forcing their air out)

Note: Many times the trumpets, horns and tubas will have difficulty getting a first sound. You can try "jump starting" them by trying a trombone mouthpiece to help them learn the feel of either more relaxation (for trumpet and horn) or for slightly more firmness in the corners (tuba). Then go back to their mouthpiece and have them recreate the feel of the trombone mouthpiece.

When all of the students achieve a decent sound with your guidance, have them repeat the procedure themselves by holding the mouthpiece toward the end of the shank. Trumpets and horns should use index finger and thumb while low brass may use two fingers and thumb. Tubas may close the end of the mouthpiece up to 50% with their ring finger or pinky to provide more resistance to the air stream. Have them hold their mirrors with their free hand.

At this point have them play whole notes/whole rests to relate playing to reading music and to introduce two count and one count breathing before playing. Always have the rhythms visible either on the board, overhead or rhythm sheet. The pitch produced does not matter as long as they are forming their embouchures correctly and producing a quality sound.

Introduce "echo playing" (I play-you play) so they hear a good sound before they play, learn to count rests, and remember to breathe on their own while others are playing during their rests. You can also divide the class into different sections depending on your class configuration and chain notes around the room (Trumpets then horns then trombone, by individuals or woodwinds on mouthpiece/head joints then brass, etc).

Note: Don't spend too much time on mouthpiece alone at the beginning. The goal is to establish the correct mouthpiece placement and feel without the complications of the full instrument. As soon as this is achieved it is time to move to the full instrument.

INSTRUMENT ASSEMBLY

Most damage to instruments occurs during assembly, disassembly and moving from one place to another. Teach a specific routine for each of the instruments and practice several times as a class with you demonstrating each step along the way.

Universal Rules

- Establish what they are supposed to do when they come into the band hall. I have my classes bring their cases to their chair and place them on the right (trumpets and trombones) or left (horns) side. Tubas and baritones place their instruments in an open area of the room.
- Always open cases on the floor with the bottom side down. NEVER UPRIGHT OR UPSIDE DOWN! Have students kneel on the ground in front of the case.
- Never set the instrument in a chair and establish when it's appropriate to place instruments on the ground and exactly how to do so.

Trumpet/Cornet

- With the left hand, grasp the instrument in the valve cluster and take out of case
- Place mouthpiece in leadpipe with the right hand and give it a slight twist
- Close the case with the right hand, close one latch then place the case back on the right side of the chair

Horn

- Grasp the valve slide cluster with the right hand and the bell with the left hand. Guide the instrument out of the case then swing the bell upward so it ends up over the right shoulder next to the head
- Place the mouthpiece in leadpipe with the left hand and give it a slight twist
- Close case with the left hand, close one latch then place the case back to the left side of the chair

Trombone

- Guide the slide section out with both hands. Place the end nub on the ground and hold by the braces with the right hand so that the longer side to the person's left. Make sure the slide lock is on.
- Grasp the bell section in the middle and bring out of the case.
- Angle the bell away from the slide while bringing the two parts together to avoid denting the left slide with the edge of the bell. The two parts should be at 180 degrees.
- Push the bell forward until it is 90 degrees to the slide section creating "friction tension" between the parts to keep them snuggly together.
- Screw down the connecting ring finger tight.
- Transfer the instrument to the left hand. Place the mouthpiece in the receiver with the right hand.
- Close the case with the right hand, close one latch then place the case back to the right side of the chair

Baritone and Tuba

- Grasp instrument in the middle section with one hand and the bell with the other
- Pull free of the case and set down flat on the floor (not on the bell)
- Remove mouthpiece, close the case and return it to it's storage area
- Insert mouthpiece and take instrument to your chair

HOLDING AND HAND POSITION

Trumpet

- Left Hand—holds the entire weight of the instrument. Shape like you're holding a large cup. Keeping wrist basically straight and naturally wrap the fingers around the valve casing with the ring finger in the third valve slide ring (don't go past the 2nd knuckle). Thumb rests in 1st valve saddle (if present) or against the 1st valve casing
- Right Hand—make a "C" and place the thumb between the 1st and 2nd valve casing and up against the leadpipe. Keep the thumb relatively straight. Fingers curve naturally and rest on top of the valve caps. Keep the pinky out of the so-called pinky hook. Too many bad habits such as unnecessary tension, mouthpiece pressure and poor hand position can develop. Palms do not touch the instrument.
- Bring the trumpet up to playing position with the angle created by the forearms at 90 degrees. The trumpet should be slightly below parallel to the ground.
- At Rest Postion—trumpet across the lap still held by the left hand

Horn

- Left Hand—Place pinky in the pinky ring and thumb in the thumb ring or on the trigger. Keep fingers shaped like a "C" and on the ends of the valve keys. Many students move the tips of the fingers too far down the keys creating sloppy technique later on.
- Right Hand—Have students reach their right hand out like they are going to shake hands. Bring the thumb alongside the index finger. The hand will naturally cup slightly. Keeping the wrist straight, place each student's hand in the bell so the line formed by the thumb and index finger is at the 12:00 position. The rest of the fingers must be against the side of the bell farthest from the body. Adjust how far the hand goes in the bell based on the student's hand size and tone produced. **Check right hand position several times every day!**
- For bell off the leg—simply bring the horn up to playing position making sure the angle of the leadpipe is slightly downward from the embouchure and the bell is free of the body
- For bell on the leg—position the right leg in such a way that the bell can be placed on the thigh in a way that creates the correct angle of leadpipe to embouchure.
- At Rest Position—bell tail of horn resting in lap with the body of the instrument upright against the player's body. Both hands on the instrument.

Trombone

- Left Hand—make a "gun" and place the index finger (muzzle) on the mouthpiece receiver and wrap the rest of the fingers around the outside brace box of the slide. Wrap the thumb around the bell brace and rest on the F trigger if present.
- Right Hand—make the "money" sign and place the first two fingertips underneath the bottom slide brace and on the left side. Thumb rests opposite the fingertips on the other side of the brace. Palm faces toward the player. Pinky and Ring finger may curl naturally or split the outside slide with the first two fingers. Keep the wrist relatively straight. Don't let it bend toward the body.
- Bring trombone up to playing position. The shape created by the left forearm and slide along with the right forearm and bell section should be an "X". Trombone should be slightly below parallel to the ground.
- At Rest Position—make sure slide lock is on. Hook the pinky of the left hand around the bottom slide brace. Balance bell on left thigh and tuning slide against left shoulder.

Baritone and Tuba

- Left Hand—placement depends on where the valves are on the instrument. In general, the left hand and arm should support and stabilize the instrument by wrapping around the front of valves up instruments or holding the main tubing on front valve instruments.
- Right Hand—for both valve configurations, make a "C" and place the tips of the fingers on the valves. Try to keep the thumb and wrist straight.
- Holding the Baritone—angle bell of the instrument across the body opposite of the mouthpiece (Bell fronts angle to the players left; uprights angle to the players right).
- Holding the Tuba—balance the tuba between the thighs and let it lean slightly forward to help create the correct angle of mouthpiece to embouchure. Use tuba stands if available.
- At Rest Position—lay instrument across the lap.

Practice going from at rest position to playing position, insisting on correct posture and hand position from the start.

Teach the order of descending valve/slide combinations and why the pitch goes down as valves are added. If you are teaching a mixed brass class you may want to correlate the valve combinations with the trombone slide positions: 4th position means 1 and 2 to the valve students.

- Open — 1st Position
- 2 — 2nd Position
- 1 — 3rd Position
- 1 2 — 4th Position
- 2 3 — 5th Position
- 1 3 — 6th Position
- 1 2 3 — 7th Position

Note: Teach the trumpets to kick out the 3rd valve slide on 1 3 and 1 2 3 valve combinations from the very beginning! Call the fingerings "1 and 3 Slide" or "1 2 3 Kick"

Call out various valve combinations/slide positions while in playing posture and have them depress the valves or move the slide.

- Valve instruments—move from the large knuckle, keeping the fingers curved. Don't allow the middle knuckle to collapse.
- Trombone—move from the elbow. Keep the fingers of the right hand naturally rounded. If the middle knuckles are collapsed then they are using too much pressure to hold the slide, creating unnecessary tension in the right arm. Describe where the positions are and tell them to try to remember what each one feels like in their elbow. Below are general descriptions of each position. The exact placement will eventually be determined by ear.
  - 1st—slide is all the way in
  - 2nd—about 1 inch of the inner slide shows
  - 3rd—Slide brace is just short of the bell edge. Do not let them touch the bell with the index finger
  - 4th—End of slide is just beyond the edge of the bell
  - 5th—Between 4th and 6th! (slightly closer to 4th than 6th)
  - 6th—Slide brace is at the top of the slide stocking
  - 7th—About 2 inches of the slide stocking shows

STARTING THE FULL INSTRUMENT

As soon as students can demonstrate a steady relaxed sound on the mouthpiece and proper playing position, it is time to move to playing the full instrument. Have each student demonstrate proper posture at rest, bring the instrument to his or her embouchure, breathe properly and attempt to make his or her first sound. Insist on everything being correct! Many (or most) will have changed something. Many totally forget to form their embouchure or take a deep breath. Stop them and have them demonstrate the correct way before allowing them to continue. If a student continues to have difficulty keeping everything the same, hold the instrument for them and bring the mouthpiece to their embouchure for them (just like when producing the first sounds on mouthpiece) then go back and let them hold the instrument.

The goal is to produce a sound that lasts a long time and is fairly full and steady. The pitch of the first note does not really matter, however, tell them what they played or ask other students what note was produced. This will get them thinking about what is actually coming out of the bell. Continue hearing individuals several times, always identifying pitches being played to help develop their pitch discriminatory and recognition abilities.

As the students become more and more comfortable holding steady sounds in 1st position (open) by themselves, start asking them to try playing lower and/or higher notes to see if they can figure it out themselves before giving them too much information. Ask them to describe what they are doing and come up with a list of simple descriptions.

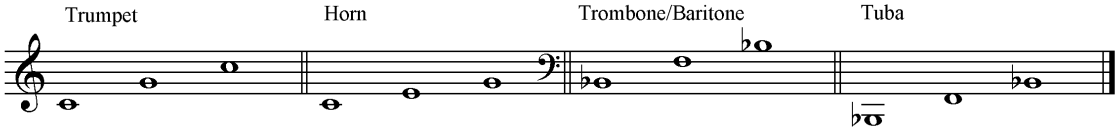
To Play Lower

- Use calmer air
- Let the aperture become wider and taller
- Direct the air more forward or straight out
- Drop jaw
- Shape a darker vowel inside the mouth (ooh, aw, oo)
- Let the lips vibrate more in the center of the red (not the shiny part)

To Play Higher

- Use energized air—make it travel farther
- Slightly firmer corners
- Aperture becomes smaller
- Let the lips vibrate more toward the edge of the red (lips curls in) Think about grasping the tip of a pencil with the edges of the lips
- Direct the air stream more downward
- Shape a brighter vowel sound inside the mouth (ee)

Identify the following notes and pitches for each instrument and have them practice playing each on demand:



Note: The tubas will probably have difficulty getting down to the low Bb for quiet some time. This is ok. They will gradually work their way down as they learn notes down from F.

PLAYING TOGETHER AS A CLASS

When most of the students are able to play the above notes at will, it's time to start playing together as a class. As with the mouthpiece alone, I like to "Echo Play" whole notes/whole rests with me leading so they hear the correct pitch and tone before they play. I usually start with F or Bb concert with trumpets, F concert with low brass and A concert (written E) with the horns. If teaching a mixed class, start on F concert with trumpets and low brass and C concert (written G) with the horns. Proceed as follows in whole notes/whole rests:
Teacher plays F concert; trumpets and low brass echo F concert; Teacher plays C concert; horns echo C concert (their G); all whole rest; all play (horns at the 4th).

Next, proceed to 2nd position/2nd valve, 3rd position/1st valve, 4th position/1st and 2nd valves (horns on open E), etc, until you reach the low Bb (concert F for horns). Make sure to identify the name of each note and what it looks like on the staff so students will relate fingerings/slide positions with note names and placement on the staff. Most beginner books start with whole note/whole rest exercises that are perfect for "Echo Playing" with woodwinds.

Note: Have the trombones rest during the longer position notes (6th and 7th) if they cannot reach them without distorting their postures.

Note: Now is a good time to introduce Flash Cards for note name and fingering memorization.

TONGUING

When students can consistently play a note or two with a solid steady sound, it is time to introduce tonguing. Have the students first blow air through embouchure. Emphasize the continuous forward motion of the air stream. Demonstrate tonguing four quarter notes on air using a "too" syllable for the high brass and "toe" for low brass. Have the students echo back. Check each student individually and look/listen for the following things:

- Do they keep the air moving? Some students will try coughing the notes with the throat or huff spurts of air—go back to blowing air on whole notes
- Does the jaw say motionless?
- Is there extra motion below the chin? If so, they are moving too much of the tongue—only the tip moves up and down—the back of the tongue stays inactive.
- Do you hear "wispy" sounds? If so, their tongue is too high in the mouth or the teeth are too close together. Shape the tongue like a spoon and remind them to keep the "oo" or "oh" syllable when tonguing.
- Do you hear a "thud" at the end of each note? Either the tongue is moving too slowly, they are stopping the air with the tongue or they are tonguing between the teeth.

Next, move to the mouthpiece then the full instrument. Watch and listen to each student individually every day for the next few weeks. Bad habits can quickly develop and are very hard to correct later on. (You can quickly hear every player by "chaining" four quarter notes down the row by individual.)

SIRENS OR "ROLLER COASTERS"

Mouthpiece sirens are helpful to brass players for several reasons. They help to gradually expand ranges both high and low as well as establish the fundamental process of changing notes smoothly—air remains constant as the aperture changes shape. I call sirens "roller coasters" so I can refer to different levels in a way they easily understand.

Start with the "kiddy coaster", beginning on a comfortable note and moving down and up slightly. At first, any pitch change is good as long as the air remains smooth and the embouchure remains correct. The goal is to move from low to high without any weird changes in the embouchure or tone. Over the course of the year students will graduate to more advance roller coasters until they reach the "Texas Giant" level (or whatever the tallest roller coaster they're familiar with…). Look for the following things and address as needed:

- Do they keep the air moving steadily?
- Head and face stay still—no bobbing up and down or raising/lowering eyebrows!
- Bottom lip—should not disappear under the top lip when going higher or pooch out when going lower
- Sound pinches when going up—caused by pressing the center of the lips together—make the aperture rounder or taller, keep center of lips soft
- Chin bunches when going up—pressing bottom lip up into upper lip—watch in a mirror

THE NEXT STEPS

Students are ready to start scales and lip slurs when they can produce steady sounds from Low Bb to F (horn written C to G), tongue properly and have successfully performed the first few real tunes in the beginner book.

SCALES

Introduce the chromatic scale within the range they can play then add notes lower and higher when they can play them successfully on mouthpiece "roller coasters". When an octave is achieved, introduce the first major scale—usually Bb concert—and continue adding as their range develops. Continue adding flash cards as new notes are learned.

Make sure the students can do the following things as they learn scales:

1. Name the key signature and say the flats or sharps in proper order
2. Spell the scale while looking at the notes. Use sharp names going up and flat names going down the chromatic scale and understand the proper use of #'s, b's and natural signs as well as enharmonic spellings.
3. Finger the scale using correct fingerings. Trombones must use appropriate slide positions (4^{th} position for upper D in Eb scale).
4. Play the scale.

NEVER ALLOW THEM TO WRITE IN NOTE NAMES OR FINGERINGS IN THEIR MUSIC!

LIP SLURS

Simple lip slurs are vital to the development of all brass players. Look and listen for the same things on lips slurs as on the “roller coasters”. Start off with two note downward slurs and when they are able to change smoothly return to the upper note. Remind students to change the vowel sound as quickly as they change the aperture for each note and to keep the air moving smoothly at all times.

Continue adding more notes of the harmonic series as their range increases on the chromatic scale. It’s a good idea for the lip slur range to lag slightly behind the chromatic scale range so that students are secure on the higher notes before they have to slur up to them.

YEAR END GOALS

Every student is different so the following are general goals to shoot for by the end of the school year:

1. Recognize note names and fingerings as well as play a two octave F concert chromatic scale (Bb concert for horn)
2. Be able to perform at least 7 major scales (Bb, F, C, G, Db, Ab, Eb)
3. Demonstrate rhythmic independence through dotted-quarter/eighth patterns
    a. Able to write counts
    b. Able to clap and count out loud
    c. Able to play
4. Single tongue quarter notes at 100.

INTERNET RESOURCES

Trombone Care and Maintenance: www.trombone.org/jfb/pdf/keepitclean.pdf

Osmun Music Reference Page www.osmun.com/reference/index.html

Texas Bandmasters Association www.texasbandmasters.org
Educational Resources (handouts from past clinics)

Trombone Daily Drill

Long Tones

Long Tone 1A

Long Tone 1B

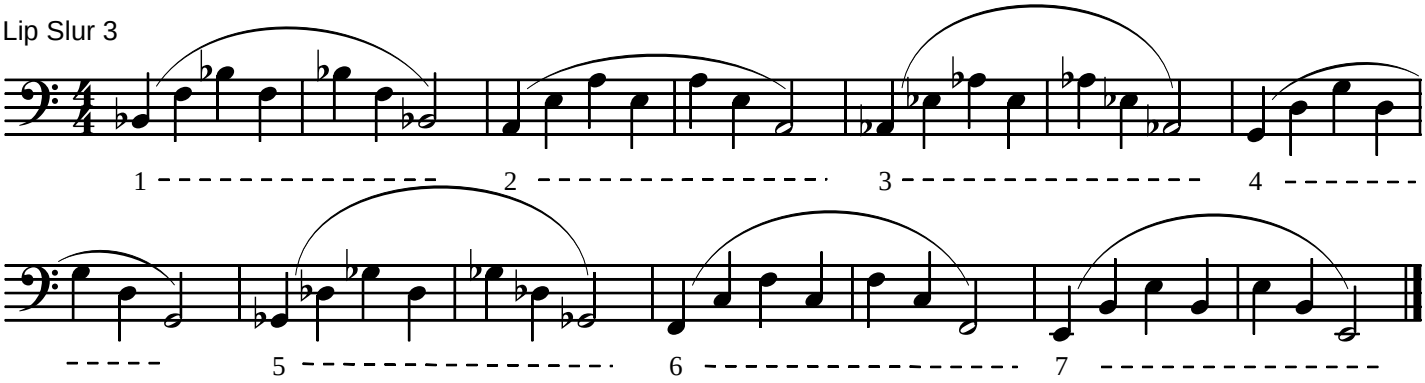
Long Tone 1C

Lip Slurs

Lip Slur 1

Lip Slur 2

Lip Slur 3



LOW BRASS CHROMATIC SCALE

CHROMATIC SCALE--a scale in 1/2 steps

1/2 STEP--the smallest interval in music

(sharp)--takes a note up 1/2 step--use #'s when going up the scale

♭(flat)--takes a note down 1/2 step--use ♭'s when going down the scale

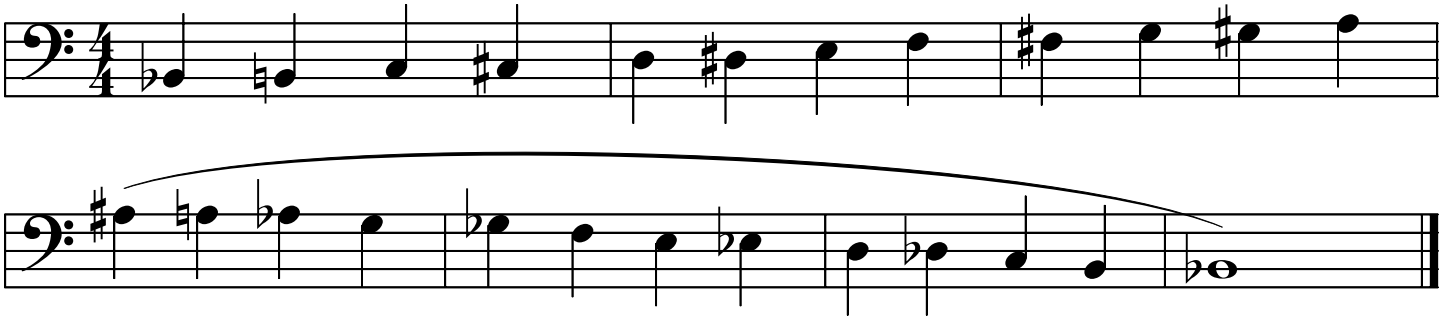
♮ (natural)--cancels a flat or sharp

ENHARMONIC--a single note with two names

CONCERT Bb TO F

CONCERT F TO Bb (A#)

ONE OCTAVE CONCERT Bb (A#) CHROMATIC SCALE



LOW BRASS EXTENDED CHROMATIC SCALE

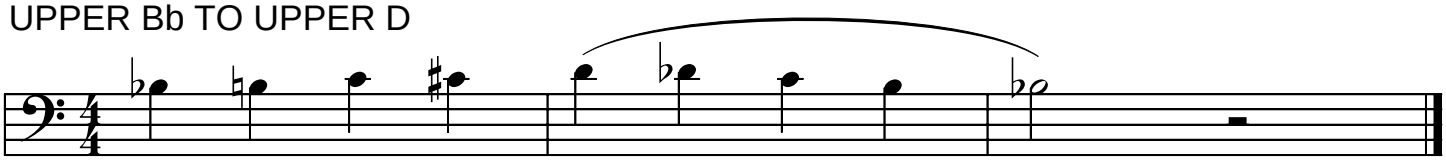
CHROMATIC SCALE--a scale in 1/2 steps
1/2 STEP--the smallest interval in music
 # (sharp)--takes a note up 1/2 step--use #'s when going up the scale
♭ (flat)--takes a note down 1/2 step--use ♭'s when going down the scale

ENHARMONIC--a single note with two names

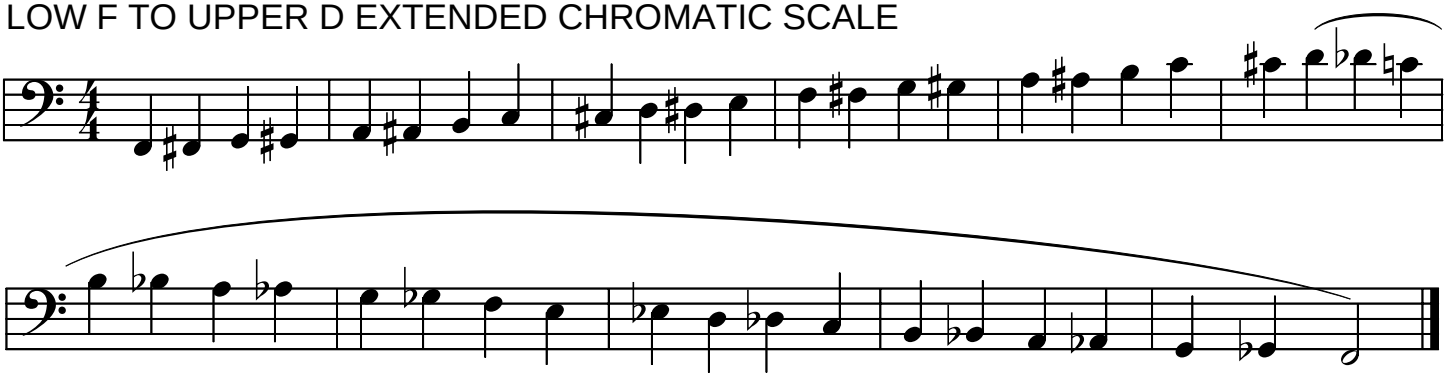
LOW F TO LOW A# (Bb)

ONE OCTAVE F CHROMATIC SCALE

UPPER Bb TO UPPER D



LOW F TO UPPER D EXTENDED CHROMATIC SCALE



LOW BRASS FULL RANGE CHROMATIC SCALE

CHROMATIC SCALE--a scale in 1/2 steps
1/2 STEP--the smallest interval in music
 # (sharp)--takes a note up 1/2 step--use #'s when going up the scale
♭ (flat)--takes a note down 1/2 step--use ♭'s when going down the scale

ENHARMONIC--a single note with two names

ONE OCTAVE LOW F CHROMATIC SCALE

ONE OCTAVE UPPER F CHROMATIC SCALE

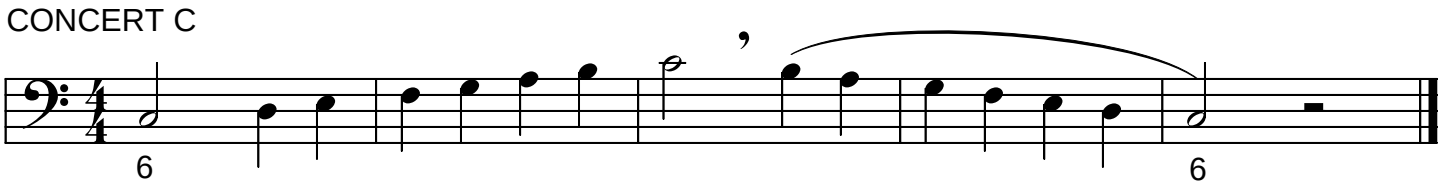
TWO OCTAVE F CHROMATIC SCALE

TROMBONE ONE OCTAVE MAJOR SCALES

CONCERT Bb

CONCERT F

CONCERT C

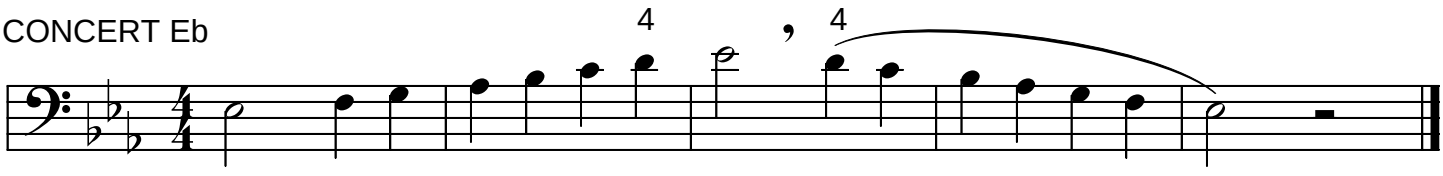


CONCERT G

CONCERT Db

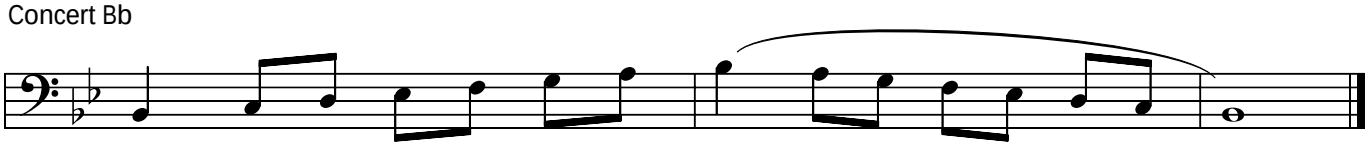
CONCERT Ab

CONCERT Eb



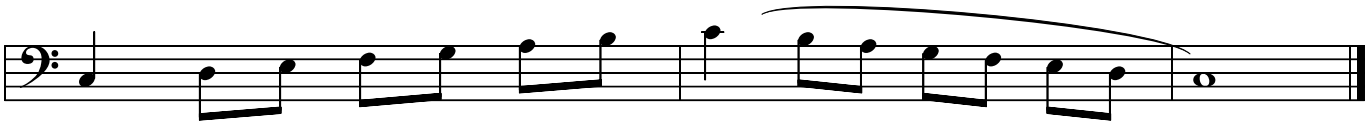
Trombone/Euphonium Major Scales

Concert Bb



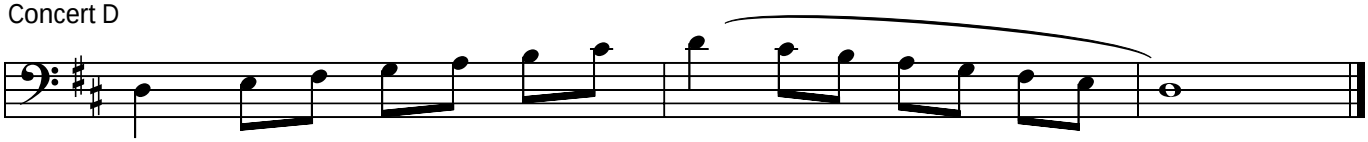
Concert F

Concert C

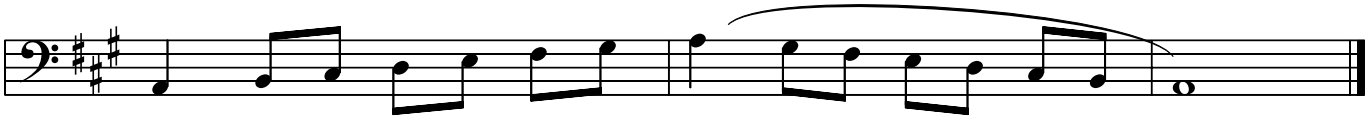


Concert G

Concert D



Concert A

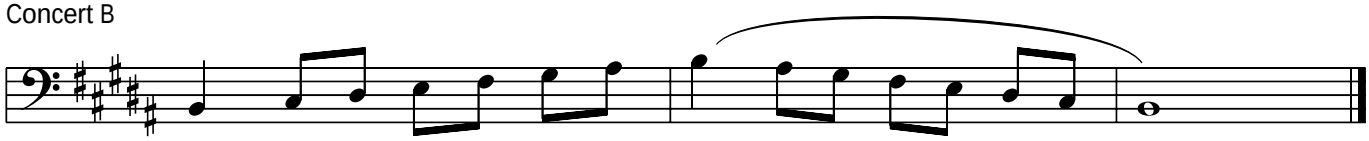


ORDER OF **SHARPS** IN A KEY SIGNATURE

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

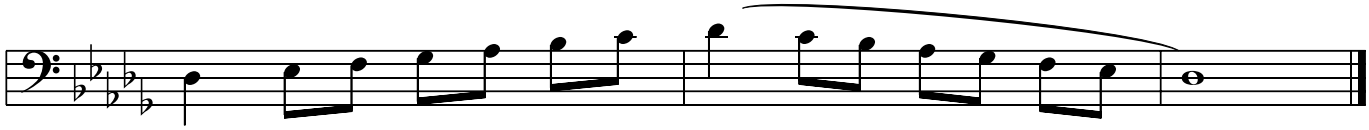
Concert E

Concert B

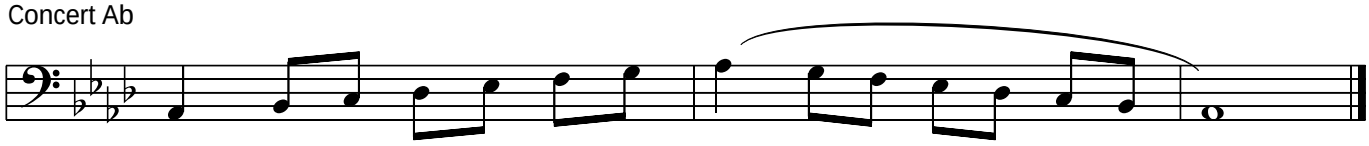


Concert Gb

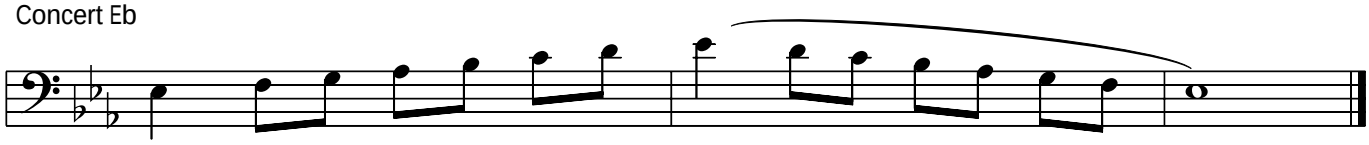
Concert Db



Concert Ab



Concert Eb



ORDER OF **FLATS** IN A KEY SIGNATURE

Bb Eb Ab Db Gb Cb Fb