The Young Horn Player’s Guide

6th Edition

Ideas presented by
Gerald “Gerry” Wood

The Four Hornsmen of the Apocalypse

Paul Blackstone
Audrey Good
Tony Licata
Gerald Wood

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www.4hornsmen.com
How the Horn Works

Harmonic series
Simply put, the harmonic series is the pattern of open notes on the horn. The intervals in the harmonic series are the same for every key. Here are the two series applicable to the double horn:

\[ \begin{align*}
\text{F Side} \\
&\left\{ \begin{array}{c}
1 \\
2 \\
3 \\
4 \\
5 \\
6 \\
7 \\
8 \\
9 \\
10 \\
11 \\
12 \\
13 \\
14 \\
15 \\
16
\end{array} \right. \\
\text{Bb Side} \\
&\left\{ \begin{array}{c}
1 \\
2 \\
3 \\
4 \\
5 \\
6 \\
7 \\
8 \\
9 \\
10 \\
11 \\
12
\end{array} \right.
\end{align*} \]

Fingerings
Figuring out fingerings is very simple if you know how the valves work and how far the desired note is from one of the open partials. For example: B natural is \( \frac{1}{2} \) step down from the open partial C, therefore it is fingered 2nd valve because 2nd valve lowers the pitch by \( \frac{1}{2} \) step. Each valve lowers the pitch of the horn by a set amount (See the chart below). With few exceptions, fingerings should default to the open partial.

<table>
<thead>
<tr>
<th>Valve(s)</th>
<th>Step(s) Down</th>
</tr>
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<tbody>
<tr>
<td>2</td>
<td>( \frac{1}{2} )</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1 2 or 3</td>
<td>1( \frac{1}{2} )</td>
</tr>
<tr>
<td>2 3</td>
<td>2</td>
</tr>
<tr>
<td>1 3</td>
<td>2 ( \frac{1}{2} )</td>
</tr>
<tr>
<td>1 2 3</td>
<td>3</td>
</tr>
</tbody>
</table>
How To Play The Horn

It’s all about air!

All wind players know how important air is, but understanding how to use air correctly and efficiently is another story. Sometimes seeing and experiencing good air production and support is the best tool to learn by. The best embouchure in the world is silent without air.

Step 1 to developing solid air:
A simple exercise, like inhaling for 4 counts and exhaling for 4 counts while concentrating on the following 3 points, will aid in creating a positive habit for breathing.

* Open Mouth
* Open Throat
* Breathe to the bottom

Step 2 to developing solid air:
Breathing without the horn is one thing. Utilizing the air efficiently while playing is another. Develop exercises in which you must use air. For example:

\[ \text{\textbf{\text{Use air to "make notes change"}}} \]

Using valve combinations:
F Side: 0, 2, 1, 12, 23, 13, 123
B' Side: T23, T12, T1, T2, T0
Embouchure Set-up & Mouthpiece Placement

Basics:

1) “Puckered Smile” – Corners firm, lips together, bottom lip slightly rolled in.
2) Mouthpiece should generally be placed 2/3 on the upper lip and 1/3 on the lower lip in the center of the mouth, angled slightly downward (depending on the angle of the teeth)

Illustrations:

Puckered Smile: Proper Mouthpiece Placement

Key Points:

1) Set-up should be horizontally centered, depending on the teeth.
2) 2/3 upper and 1/3 lower lip (or 1/2 and 1/2) in the mouthpiece
3) Should be relaxed in appearance – if it looks hard it probably is.

Things to Remember:

1) The “Umm Puhh” Method – For proper set-up of embouchure, pre-mouthpiece, set your mouth in the following manner:
   Step 1 – Say “Ummm” (the lips should press together evenly in an “M” shape).
   Step 2 – While keeping the corners firm Say “Puhh” (the center of the lips should pucker slightly).
2) When placing the mouthpiece to the lips – hold the mouthpiece by the shank with the thumb and index finger – this allows you to see the proper placement and reduces the leverage they have on the mouthpiece so you don’t shove it.
3) Practice in front of the mirror placing the mouthpiece.

THE YOUNG HORN PLAYER’S GUIDE
Proper Playing Posture

Basics:

1) Left Hand: On the grip, fingers curved onto the valve paddles, thumb under lead pipe on the thumb valve, and pinky around the pinky hook.

2) Right Hand: In the bell, fingers and thumb together, hand slightly curved placed against the side of the bell away from the player with the weight of the horn on the thumb and index finger.

Key Points:

1) The horn should be brought to player, not the player to horn.

2) Right Hand position GREATLY AFFECTS INTONATION.

3) Left Hand – Keep the fingers close to the keys at all times.
Playing the Horn

Things to Remember:

1) Often the horn is too large and heavy for young students at first. It is important that you “bring the horn to you” - not slouch or over-extend to get the mouthpiece to your lips.

2) Horn on/off the leg – As previously mentioned the horn is rather heavy for young players so it is recommended for you to rest it on your thigh. Height adjustment can be made by moving the right foot forward or backward and increasing or decreasing the bend of the knee.

3) Hand Position is often one of the most important, misunderstood, and disregarded problems with young horn players. Proper hand position is imperative to the intonation and characteristic sound of the horn. Too many times I have heard band directors complain about the horrible sound and intonation of their horn sections, all of which could be fixed by proper hand position.

For the Right Hand use a 3 step approach.

   Step 1 – wave the right hand like a “princess in a parade” (fingers together)

   Step 2 – use the index finger to point to the bell brace.

   Step 3 – place the hand in the bell with the thumb under the bell brace and lift the horn parallel to the ground (so the weight is on the back of the hand) then let it back down – shifting the weight to the thumb.

Once and for all, This Is THE Correct Way:

YES!  NO!  NO!
Articulation

Clear articulation is imperative, especially for horn players whose bells face away from the audience. The sound must travel back to the wall then finally out to the listener. An unclear attack turns into “blah” by the time it travels the whole distance.

Block vs. Wedge Sound

Horn players are renowned for producing round and beautiful sounds; however, they are also notorious for missing notes! As a result, horn players have a tendency to “test the waters” before fully committing to a note, resulting in what we like to call “mushrooming,” “wa-wa” or “ballooning” the sound. If it were to be drawn it would look like this:  

While it may be pretty, it is not clear and makes clean entrances nearly impossible. The ultimate shape of sound for clarity and uniformity is a “block sound” with a clear “square” front and back. Like this:

Here is the trick: Begin the note with an accent ( ) but do not let the note taper. Add this:  to this and get ; as represented in the chart.

Depth of Sound and Center of Pitch

Without depth of sound, proper articulation will only produce the beginning of the notes. A good and compact sound is the result of digging into the core of the sound.

Image 1

Often students play with a very shallow sound which does not project. Imagine a cone, the deepest point is in the center. By targeting the deepest point of the cone, more of the core of the sound is exposed which produces a much more solid and satisfying result.

Image 2

In addition to depth, there is a center to every pitch - a point at which the pitch rings and projects the maximum amount. Imagine a pitch as a circle or a cone with an x in the middle. Everything within the circle is part of the pitch, but only the center (where the x is) produces the maximum core of sound. It is important when changing notes to change from center to center.
Rhythmic Subdivision
Correct and exact rhythm is a goal for every ensemble player. The pitfalls of poor subdivision multiply in proportion to the number of players in a group. If one player is “guessing” at the rhythm the entire group suffers. Don’t be that player! Proper rhythmic subdivision and understanding is the key! Here are some ideas that can point you in the right direction to this problem:

1) Recognize the Macro-beat or “Big-Beat.” In 4/4 the “big-beat” lands on 1, 2, 3 and 4. Everything else is a subdivision of this beat.
2) Subdivide to the micro-beat. Feeling eighth notes within quarter notes greatly increases the chances of interpreting rhythms correctly.
3) “Bop” through difficult and potentially unclear sections. “Bopping” is a technique by which the player plays only the beginnings of each note, effectively focusing on placing the beginnings of each note in the proper alignment with the others.
4) Slow the tempo of a section way down. Slowing a section down allows you to fix numerous mistakes, not the least of which is rhythm.

Intonation
Intonation is often one of the more obvious and overlooked aspects of young horn players. Most young players don’t even know what the word intonation means – let alone how to play in tune! Intonation should be as high a priority as rhythm and correct pitch. A good ear is essential and aural skills are imperative to the proper development to horn players. There are many ways to do this…here is what has worked for me.

#1 – Know what “in-tune” is. - What does it feel like….what does it sound like?
#2 – Know your options for change.
   1) Move the slide (Sharp – Pull Out; Flat – Push In)
   2) Move the bell hand (Sharp – cover; Flat – open)
   3) Drop or raise jaw (Sharp – drop; Flat – raise)
   4) Alternate fingering (ie. 3 vs. 1/2)
#3 – Use your ears. – If there are “bumps” or it sounds bad…its probably out of tune!
   Play the follow game with your friends
   1) They play a pitch and move it sharp or flat and you follow them and match them.
   2) You play a pitch and they find you.
#4 – Arm yourself with Knowledge
1) Know about the intonation “problems” with regard to the harmonic series. These intonation “problems” are, in fact, caused by our interpretation of them with regards to equal temperament. The equal tempered scale was originally conceived so that the space between the twelve chromatic notes of the scale would be the same and keyboard instruments would be able to modulate at will between the different keys without having to retune. Here is an illustration of which notes of the natural harmonic series are incongruent with the equal temperament system:

![Image of harmonic series]

2) Certain parts of a chord need to be treated differently depending upon their function.
   Some Basics:
   *In a Major Triad the Fifth is raised (2 cents) and the Third is lowered (14 cents).
   *In a minor chord only the Third is raised.
Transposition

Due to the early history of the natural horn crooking system, composers wrote for the horn in various keys. As a result, modern horn players must transpose these parts to play them on the modern horns that are in the key of F. Here are some of the most common transpositions in order of frequency.

**E Flat** - Transpose down 1 whole step

**E Natural** - Transpose down a ½ step

**C** - Transpose down a Perfect 4th

**B Flat** - Transpose down a Perfect 5th

**D** - Transpose down a Minor 3rd

Stopped Horn

Another technique horn players are commonly asked for is stopped horn. It is indicated by a + over a note (the opposite is indicated by a o).

**Technique:** The right hand is cupped – completely covering the bell

**Transposition:** The indicated note is fingered ½ step down (generally on the F horn – although other fingerings may produce better intonation)
Tips on How to Practice

Practicing

Consistency is the key! Practicing 30 minutes every day is better than 3 hours in one day. Practicing is essentially building muscle memory and muscles. Consistent reinforcement is required to “keep the reservoir from evaporating.”

For young players I recommend at least 45 minutes a day – everyday!

Practice what you don’t do well!
All too often students tend to practice all the stuff that they are good at and rarely get around to practicing the stuff they do not do well.

Always Practice with a metronome!
As mentioned earlier, rhythmic accuracy is imperative to correct playing.

Start Slowly
⇒ Practice it only as fast as you can play it perfectly.
⇒ Music at its most basic level is just a progression of pitches. Diagnose where the problem is and fix it. Usually you will find it is just the transition between two notes that is the problem, so…practice those two notes…

Be encouraging to yourself.
Don’t be too lenient or overly tolerant, but don’t get frustrated if things are not working….be patient, give your brain a chance to process the information.

Keep it interesting.
Playing the same thing over and over again can be boring! Here are some ideas that might make things a little more interesting:
⇒ Practice different articulations
⇒ Accent notes that are weaker than others
⇒ Practice different rhythmic patterns
⇒ Practice it in another key
⇒ Loop a set of notes
### Sample Practice Chart

Keeping track of what and how much you are practicing is essential to developing good and efficient practice habits. *Try it for a week and see how much more focused you are on the task at hand.*

<table>
<thead>
<tr>
<th>Warm-up/Daily Drill</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
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<td>Breathing</td>
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<td>5 min</td>
<td>5 min</td>
<td>5 min</td>
<td>5 Min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lip-Slurs</td>
<td>Long and Low 10 min</td>
<td>Ball Lin # 1 10 min</td>
<td>Long and Low 10 min</td>
<td>Ball Lin # 2 10 min</td>
<td>Long and Low 10 Min</td>
<td>Ball Lin # 1 10 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Articulation</td>
<td>Artic. 5 min</td>
<td>Chromatics to c 10 min</td>
<td>Artic. 5 min</td>
<td>Chromatics to c 10 min</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scales</td>
<td>F - 10 min BB - 5 min</td>
<td>F - 5 min G - 5 min</td>
<td>Db - 10 min</td>
<td>G# - 5 min</td>
<td>Scale Sheet 15 Min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etudes</td>
<td>Mirsch #14 15 min</td>
<td>Mirsch # 14 10 min</td>
<td>Mirsch #14 10 min</td>
<td>Mirsch 5 min</td>
<td>Mirsch 15 Min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solo</td>
<td>Mozart 3 15 min</td>
<td>Mozart 3 20 min</td>
<td>Mozart 3 10 Min</td>
<td>Mozart 3 20 Min</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excerpts</td>
<td>Till - 5 min</td>
<td>Till - 10 min</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Time</td>
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<td>:40</td>
<td>1:00</td>
<td>:40</td>
<td>:30</td>
<td>1:40</td>
<td></td>
<td>5:40</td>
</tr>
</tbody>
</table>
Horn Maintenance

Oiling Valves
Sticky valves are a common occurrence even for the most experienced players. This can be avoided with regular oiling. This is inexpensive and easy to do in less than 2 or 3 minutes.

Products to use:
You will need two types of oil: a thick and a thin. DON’T PAY FOR THE EXPENSIVE “SPECIALTY” OILS FROM THE MUSIC STORES. Go to Wal-Mart or any department store and spend less than $5 for a suitable and clean product.

- **Thin Oil**: Pure Paraffin – This is standard lamp oil. You can get a half-gallon for less than $2.
- **Thick Oil**: 60% Paraffin, 40% 3-in-1 Oil – you can get 3-in-1 Oil at Wal-Mart or a hardware store.

How to oil valves:
1. Drip thick oil down on the bearings (image 1 and 2).
2. Pull the slides WITHOUT pushing the valves down. This sucks the thick oil into the bearings.
3. Drop thin oil into the outer valve slides (image 3).
4. Move the valves by pushing them up and down.
5. Repeat Step 3
6. Put the valve slides back in WITHOUT rotating the valves – This pushes the thin oil into the bearings and mixes it with the thick oil.

Greasing Slides
Stuck slides are another common occurrence and are usually a result of neglect. There are all sorts of products out there, but nothing seems to work as well as STP Oil Treatment, which you can get at any place auto supplies are sold ($3 and you have a lifetime supply of slide grease). Use a plastic bristled paintbrush (VERY cheap – the kind you find in water color paints or other children’s art supplies) to “paint” grease onto the slides.
Equipment

Informational Flow Chart of Brands & Models of Horns

There are lots of different brands and models out there. Listed are the most common horns and where they fall in the spectrum of student horns vs. professional horns.

Brand (most common model(s)) (approximate price of a new horn)

<table>
<thead>
<tr>
<th>Student Models</th>
<th>Professional Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conn (8D) ($3500)</td>
<td>Alexander (103) ($6600)</td>
</tr>
<tr>
<td>Holton (179) ($3000)</td>
<td>Paxman (20/23/25) ($8000)</td>
</tr>
<tr>
<td>Yamaha (?67/68) ($2500)</td>
<td>Schmidt ($10000)</td>
</tr>
</tbody>
</table>

In the Market for a Horn?

Are you looking for a new or used horn? Here are a few suggestions for where to go and what to look out for (for more check out http://www.io.com/~rboerger/newhorn.html):

- **Check out http://hornplayer.net**
  - This is basically a "horn player’s classifieds" and should give you a pretty good idea of what the horn you are looking for will cost. The sellers are screened, will generally treat you very well, and often offer trial periods.

- **Be careful with EBay**
  - Not all sales/sellers are legitimate and some will try to sell you complete junk. Also, usually there is a reason they are selling it on EBay instead of one of the systems commonly used by horn players. In addition they generally don’t offer trial periods.
  - A recent trend on eBay has been some guy under multiple aliases offering cheap Bb horns made in China (the brands, when listed, include Parrot, Jin Bao, Bestler (this guy is famous for his "I have a new silver plated Bb French Horn that I happened to acquire" line) or Shinghai). These horns have a stopping valve, but the seller often advertises them as "BRAND NEW DOUBLE HORNS -- CHEAP!!" Needless to say, the old rule of *caveat emptor* (let the buyer beware) applies strongly when you are buying a horn you can’t try out from someone you don’t know. If someone’s trying to sell a ‘new double’ for $300, how good do you think the horn really is?

- **Work out a “test period” with the seller.**
  - Not all horns are made equal and no one wants to dump a lot of money into a lemon or a horn they will end up not liking. You wouldn’t buy a car without a test drive.

- **Be careful of local stores**
  - You can more than likely get a horn SIGNIFICANTLY cheaper online from a reputable mail-order dealer.

- **DO NOT buy a single-horn (F or Bb)**
  - Sure they are much cheaper, but the pitfalls are numerous. Chances are you already have a single-horn – double horns are a definite upgrade!

- **DO NOT buy an “unnamed horn” especially if it is sold at Wal-Mart!**
  - The market is being flooded with cheap Chinese made horns. With VERY few exceptions, these horns are not good – avoid them.

- **Get help from a Horn Player**
  - You wouldn’t have someone who has never driven before tell you what is good or not good about how your car drives.
Mouthpieces
There are hundreds of mouthpieces out there. All of them offering different things and most of them are bad! Mouthpieces are often included with new and used horns and over the years schools have collected quite a few of them. Here are the mouthpieces I recommend:

**Holton-Farkas Mouthpieces**
These are the mouthpieces designed by Philip Farkas. 90% of the world’s horn players started on these mouthpieces. They are by far the best both for price and quality (about $25). The two most common models are the MC and MDC. I recommend starting with the MC.

**Giardinelli Mouthpieces**
These mouthpieces offer a little more flexibility in specific choices. They cost significantly more ($50). The choices are numerous but I recommend the C-8 or C-10 model.

Mutes
There are 2 types of mutes commonly used by Horn players: 1) The standard Straight Mute and 2) the Stopping Mute.

**Straight Mutes**
They come in various designs. No transposition is required. For young students the “Stone-Lined” (red and white) is more than acceptable.

**Stopped Mutes**
This mute uses the same principals as the stopped horn (transposition) – except with a mute. The mute makes stopped horn more stable.
An unfortunate fact in a horn player’s life is the Mellophone. Marching Band is a way of life and thus the Mellophone. Another unfortunate fact is the impact the Mellophone has on horn player’s embouchure. The angle the horn must be held for marching and the often different mouthpiece create habits that are counter to an optimal and efficient embouchure set-up for the Horn.

**Softening the Blow**
To avoid complicating the differences between the instruments, use an adapter so the student does not have to change mouthpieces.

**Fingerings**
For the most part fingerings are the same as the Bb trumpet. The F Mellophone uses the same fingerings as the F side of the horn.
Lip Slurs

All of these exercises should be done with a focus on a continuous airstream and a consistent sound. Use all valve combinations (0, 2, 1, 12, 23, 13, 123)

Articulation Exercises

Remember the box vs. wedge concept, and the accented beginning concept. Try to maintain consistency.

This exercise is to be done over a period of time. Special attention paid to creating a “block” sound. Repeat each section at least 3 times.
Farkas Scales
Focus on creating “block” sounds. Vary tempo and do in all keys.

Forest Standley Exercise
Many believe this to be a long-tone and endurance exercise. However, in addition to this, if it is used to focus on the beginnings of notes, many articulation issues can be addressed.
Long Tone Exercises

1. Pay attention to a constant air stream and a consistent sound in all registers

2. The inverse of the previous exercise. Focus on “flicking” the small muscles while maintaining a constant air stream and a consistent sound in all registers

3. The Craig Morris Long Tone Scale
   This is primarily an endurance exercise that has an impact on many other things at the same time. For the first couple of weeks, repeat 3 times, then add one repetition every couple of weeks following until six repetitions are achieved. Then move the exercise up a half step and start over at 3 repetitions.
Long-tone scales
Repeat the first measure 3 times and the last one at least 2. Do all in one breath. Vary the dynamics, but maintain a rather slow tempo.

\( \text{\( q = 60 \) } \)
Spaulding Variations

Long and Low

1a. 1b. 2a. 2b.

Continue with: T23, T12, T1, T2, T0, 123, 13, 23, 12, 1, 2, 0, T23, T12, T1, T2, T0

2 Things to Remember:
- Constant Air
- Consistent Sound
**Chromatics**
To be played in all keys progressing up chromatically to 3rd space C. Can be played articulated to work on consistent articulation.

\[ q = 60 \]

**Trill Flexibility Exercise**
Less Movement = Efficient Playing. Concentrate on minimizing the movement of the embouchure. Play each measure repeated 6 to 8 times then rest the equivalent amount of time.

A)

B)

**Teuber Flexibility Exercise**
Repeat each section on each valve combination.

(I) \[ q = 60 - 100 \]

(II) \[ q = 60 - 100 \]

(III) \[ q = 60 - 100 \]

(IV) \[ q = 60 - 100 \]
Breath Control Arpeggios
Strictly observe rests (rests are as important as playing)
Bai Lin Flexibility Studies

As with all previous exercises, focus on constant air and a consistent sound.
All letters are to be done on all valve combinations (0, 2, 1, 12, 23, 13, 123)

I.

a) $(q = 60)$

b)

c)

d)

II.

a) $(q = 60)$

b) c)

d) e)

f) g)
Chromatic Scale

Trills

Must be done with a metronome! Notes must start on-time and end on-time - "hang-overs."

Continue the exercise through the circle-of-fifths using the given fingerings:

Variations

1.  

2.  It is very important that the trill step right in tempo. This is good practice for Mozart and Beethoven

through the circle of fifths
Interval Exercise

Focus on maintaining consistent articulation, sound and air in all registers.
Can also be played with varied articulations or all slurred.

Miscellaneous Exercises
Quality Tones
Focus on quality of sound. Air is the key; keep it moving through every note. Strive for a homogeneous sound.

\[ q = 60 \]

High Register Exercise
Use normal fingerings and try to use as little increase in lip pressure for the last two notes as possible. Play only as high as is comfortably possible. Go for a focused, easy, and ringing sound.

\[ q = 60 \]

Mid/Low Register Exercise
Play each section with the indicated fingers then move on to the next section. Focus on keeping notes homogeneous. Constant air and consistent sound.

\[ q = 80 \]
Path Exercises
These are exercise ideas that utilize the “Path to Great Horn Playing” as taught by Bill VerMeulen. The emphasis should be placed on using AIR (vs. the chops) to change notes. Feel the pop of each of the harmonics.

a)  
light tongue, keep air moving

b)  
light tongue, keep air moving

c)  
light tongue, keep air moving
Expansion Exercise
Consistent and constant airflow. Focus on using the air to make the notes change, not the chops.

\( \text{\(q\)} = 60 - 100 \)
Study No. 3

Purpose: Flexibility and Endurance

Instructions: Play slurred the first time through, using the notated fingerings, articulated with regular fingerings the second time. Use a metronome to insure rhythmic evenness.

(q = 60 - 120)

Clarke Studies

The Young Horn Player's Guide
The Young Horn Player's Guide
Continue using circle of 5ths
I. Single Octave

Sachs Arpeggios
from Daily Fundamentals for Trumpet

Michael Sachs

©2002 International Music Company
II. Extended
<table>
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<th>Week of:</th>
<th>Monday</th>
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<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
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Comprehensive Fingering Chart

- Fingerings are listed in order of preference - top to bottom - The underlined fingering is the preferred fingering.
- The harmonic the note is derived from is in parenthesis.
- 1/2 combinations and 3rd valve are interchangeable (3rd is usually a lower or “flat” fingering)

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