



Into The Flutosphere

A Primer On The Third Octave Of The Flute

With musical examples, embouchure tips, and pitch tendencies for each note

By Bryan J. Lackey

In fulfillment of the requirements for MUSI6285 (PA1)



INTO THE FLUTOSPHERE

Credits and special thanks

Works Cited

- Hummel, Cate.** “About the Third Octave”. Dr. Cate's Flute Tips, December 14, 2014 (retrieved June 27, 2017). <https://drcatesflutetips.wordpress.com/2014/12/14/about-the-third-octave/>
- Kerns, Sarah Vay.** Personal interview. July 8, 2017
- Wilson, Rick.** “19th century Boehm flutes”. Rick Wilson's Historical Flutes Page. Retrieved July 29, 2017.

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All musical examples are the creation of the author.

This book would not have been possible without the gracious help of Sarah Vay Kerns. Her patience with teaching flute to a brass player is legendary.

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About The Author

Bryan J. Lackey has been making music since he was nine years old. He started band, as many did, in fifth grade, holding a trumpet case that was almost as big as he was. A few years later he picked up trombone, and by his junior year of high school he had discovered the wonders of music teaching. In his journeys he has played with concert bands, orchestras, jazz groups, rock bands, and even a hiphop group. He has served as principal trumpet of the Yorba Linda Orchestra, featured soloist with the Pico Rivera City Jazz Band, and been a member of Failed To Victory, Skapeche Mode, and the Mellodramatix. He is also a founding member and primary songwriter of Goodluck Shark.

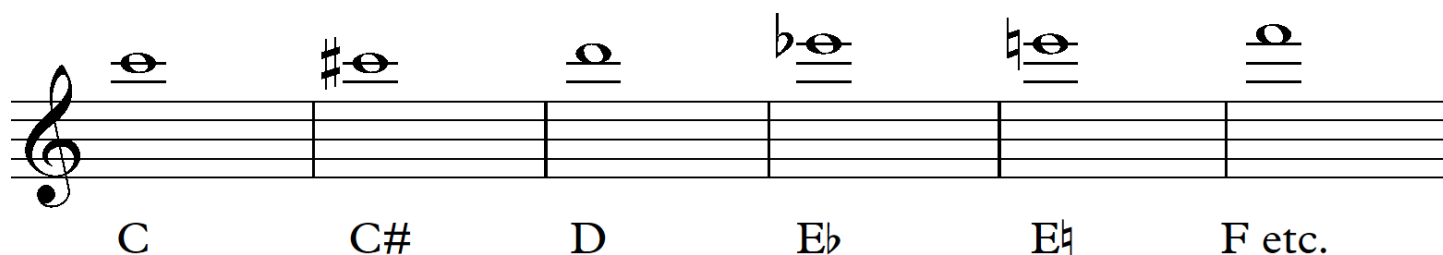
As a music educator he has taught all levels of band and orchestra, from elementary to high school, across southern California. He has been a clinician, coach, and guest conductor with many ensembles, and he is currently in his fourth year as the Director Of Instrumental Music at Morningside High School in Inglewood, California.



INTO THE FLUTOSPHERE

Introduction

Welcome! If you're reading this, you've probably already been playing flute for a year or two and may have started to see some notes with a *lot* of extra ledger lines. As you probably know, flute is the highest pitched instrument in the concert band and orchestra (other than its tiny cousin, the piccolo) and there are a lot of notes past C above the staff-



This book is intended to help you learn to play those notes in the easiest way possible. We'll start with a discussion of embouchure and air, and then for each note we'll talk about the fingerings and give some simple examples to get you used to each new note. As you learn each new note, try the overblow fingerings first, then the third octave fingerings, so you can hear and feel the differences between the two. Finally, the book has exercises in the back to help connect the lower and higher registers.

This book assumes that you have a basic familiarity with playing the flute and musical notation. If you have any trouble understanding any part of this book, please talk with your band director or private teacher.

Fingering conventions

Fingerings for each new note will be shown visually and referenced by number. The main six keys are 1-2-3 (left hand) and 4-5-6 (right hand), with special keys such as G#, Eb, etc. referred to by name. "Thumb" always means the back thumb/B natural thumb unless otherwise specified.

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Let's talk about the third octave

Why The Third Octave Is The Way It Is

Theobald Boehm invented the modern flute, after almost two decades of development, in 1847 . He created an instrument with a very logical, fully chromatic fingering system that could play all of the notes in any key with relative ease (Wilson). This system works great for the first two octaves, as the fingerings are either identical or almost identical from D below the staff to C above the staff. Look at your fingering chart and see-A is the same fingering in both octaves, D and E flat only change one finger, etc.

Until D above the staff. After that the fingerings can seem almost random from high D to high C! Except...they're not. The fingerings work because they combine the overtones for two different notes-D above the staff combines G and D, high E combines A and E, and so on (Hummel), and the open fingers *vent* the note, allowing it to speak more clearly. All of the fingerings in the high register take time and careful practice to master, but understanding this principle will help your development.

Embouchure In The Third Octave-aka “what to do with your face!”

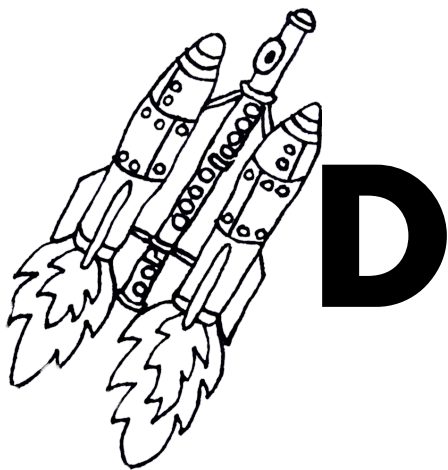
In the words of Sarah Kerns, when you play in the third octave “you want to do pretty much the opposite of what's intuitive”. The instinct of most of people is to just tense up and blow as hard as possible to get the high notes out. Don't do that! Instead, make sure you have a good, solid, warm first octave, and use that as your basis for your high notes. Think about relaxing your way up to the high notes. Use the very center muscles (rather than the outer “smile” muscles) of your lips to make your aperture (your “air hole” in your lips) smaller, and then blow faster air. Think about changing the air direction for the higher notes, although which direction will work best varies quite a bit person to person and flute to flute. Use only as much effort as you need to get each note-not all you have!

Exercises For The Third Octave

This book includes a combination of exercises to help you master the high notes on your instrument. Each note is introduced in sequence, and simple exercises are provided for each one so you can get used to playing and reading each note-those ledger lines can get confusing! In addition, there are also a variety of *harmonic exercises*, or *lip slurs*. These are exercises where you play multiple notes using the same fingering. We use these exercises to develop our tone, air control, and flexibility, and they are one of the best ways to develop your high register. Once you can play each third octave note with a harmonic or overblow fingering, try the standard fingering. Listen for and feel the difference in the way the note responds for each one. Do these types of exercises every day as part of your warmup, and your range will develop much faster.

In this book the exercises for each note always begin with a harmonic exercise, and a collection of harmonic exercises are found on pages 18-22.

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The first note we'll deal with that uses a different third octave fingering is D above the staff. D vents the right hand keys and the pinky, and so is fingered thumb-2-3-Eb key

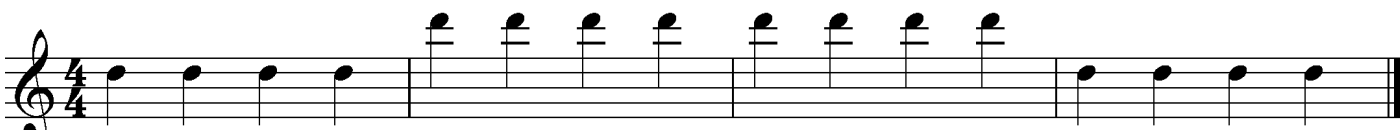
Pitch tendency: D above the staff tends to be flat

① Upsee D-see

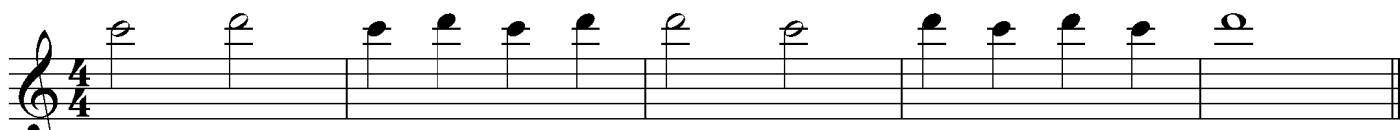
1st time use overblow fingering, 2nd time use 3rd octave fingering



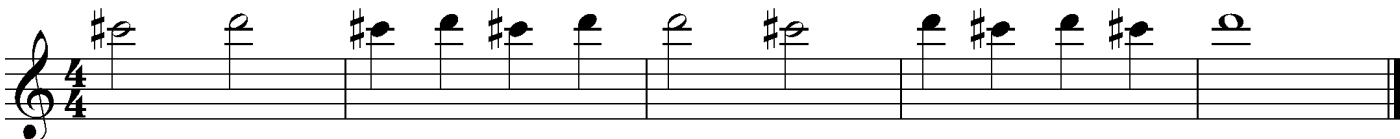
② jumped



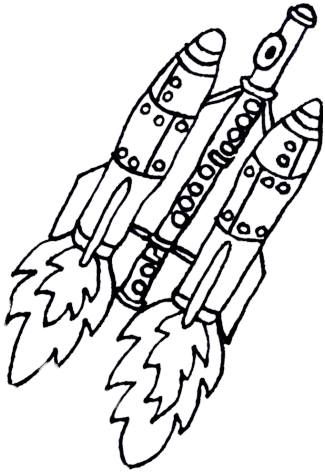
③ C h o w t o D o i t



④ Leading into it



INTO THE FLUTOSPHERE



D# / E \flat



E \flat is the one of the few third octave notes to use more fingers than its lower counterpart. Use thumb-1-2-3-4-5-6 and both pinkies.

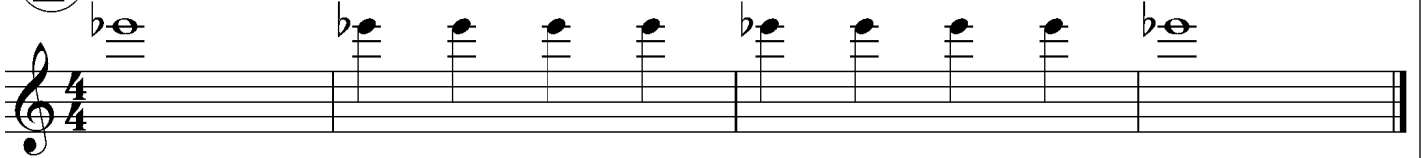
Pitch tendency: E \flat above the staff tends to be sharp

1 Introduction to E flat

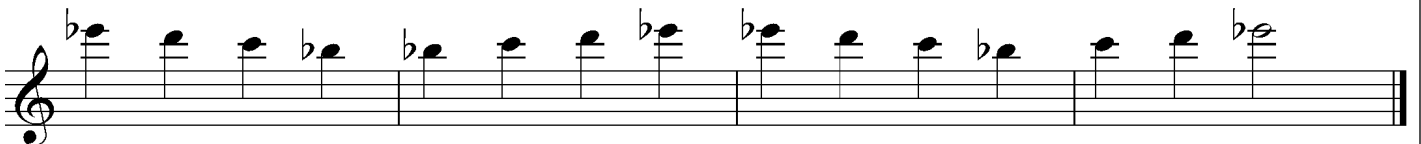
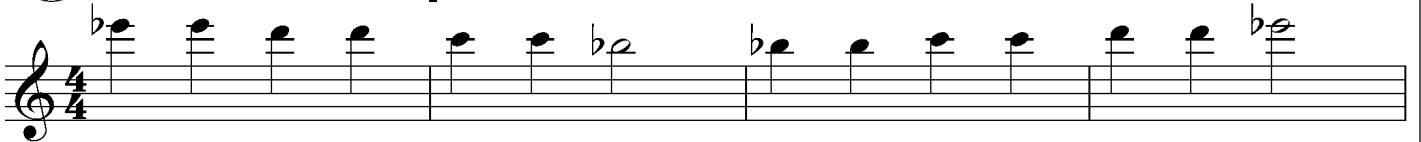
1st time use overblow fingering, 2nd time use 3rd octave fingering



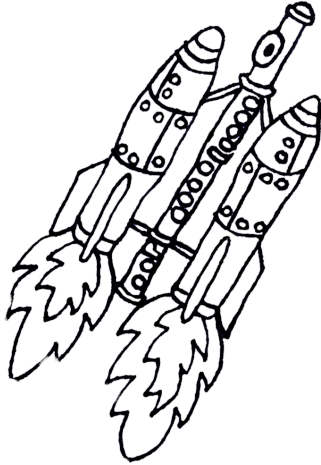
2 Play Eet Flat



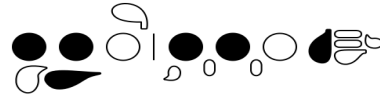
3 Down and up



INTO THE FLUTOSPHERE



E

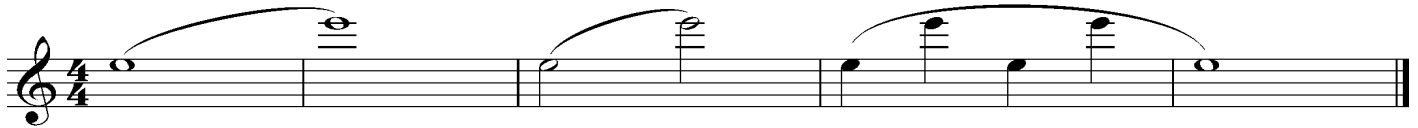


E natural is almost identical to the lower E, except it vents the third key. Use thumb-1-2-4-5-Eb key.

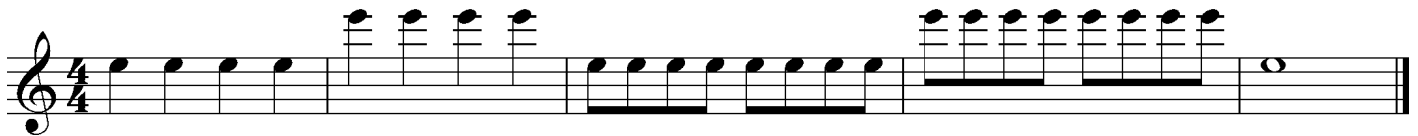
Pitch tendency: E above the staff tends to be sharp

① E...naturally

1st time use overblow fingering, 2nd time use 3rd octave fingering



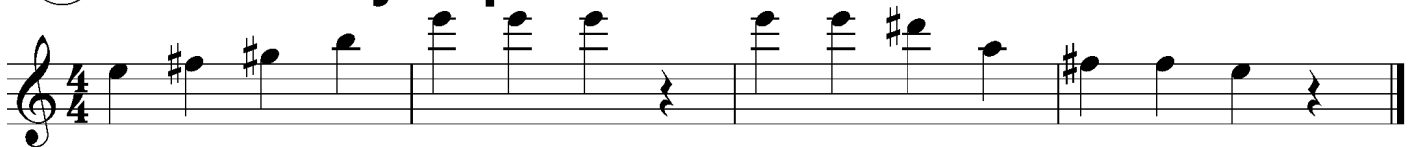
② JumpEEng faster



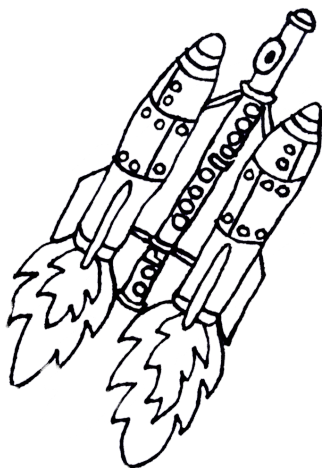
③ E arpeggio study



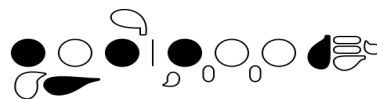
④ Walk and jump



INTO THE FLUTOSPHERE



F

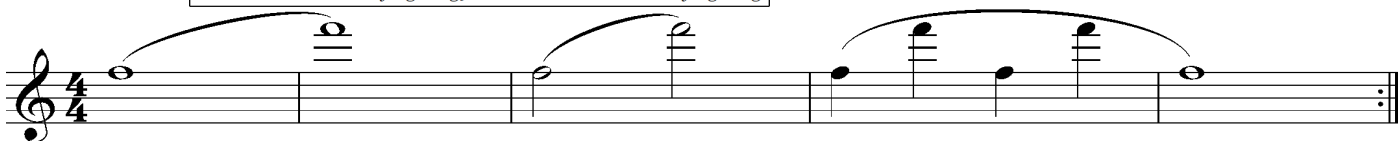


Much like E, F is also almost identical to the lower F except for one vented key. Use thumb-1-3-4-Eb key.

Pitch tendency: F above the staff tends to be sharp

① F to F

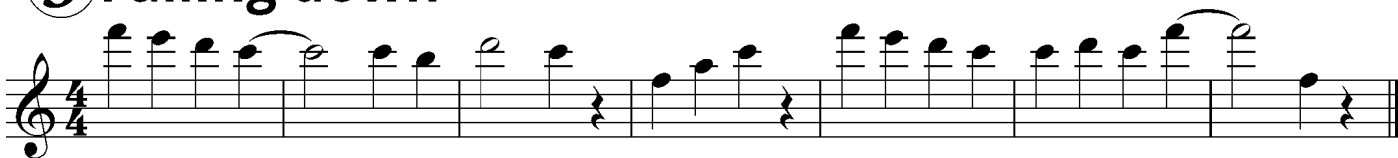
1st time use overblow fingering, 2nd time use 3rd octave fingering



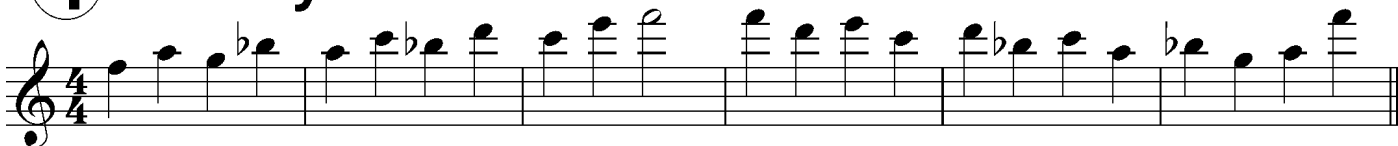
② F frenzy



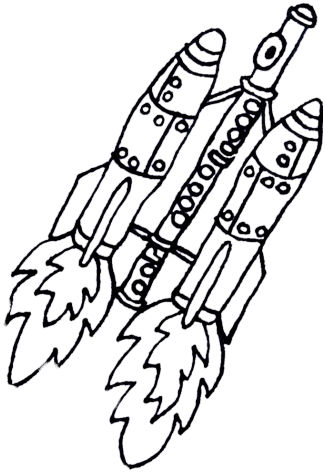
③ Falling down



④ Friendly stairs



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F# / Gb



F#/Gb also vents one key from its lower counterpart. Use thumb-1-3-6-Eb key.

Pitch tendency: F#/Gb above the staff tends to be sharp

1 F#

1st time use overblow fingering, 2nd time use 3rd octave fingering



2 Gb

1st time use overblow fingering, 2nd time use 3rd octave fingering



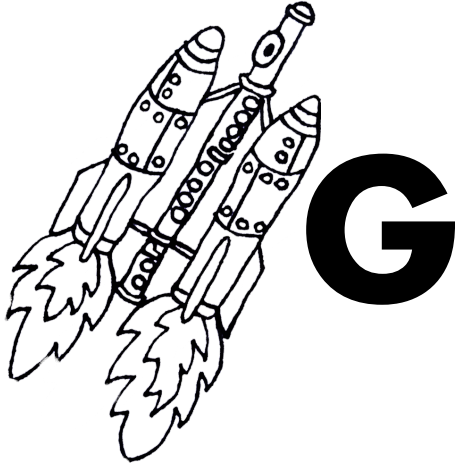
3 Stretch!



4 Tiptoe



INTO THE FLUTOSPHERE

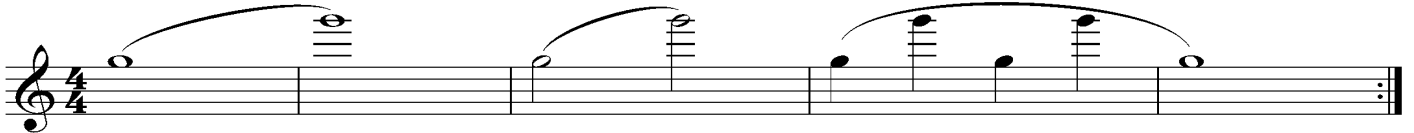


G is identical to the other Gs on the flute other than the lack of thumb. Use 1-2-3-Eb key.

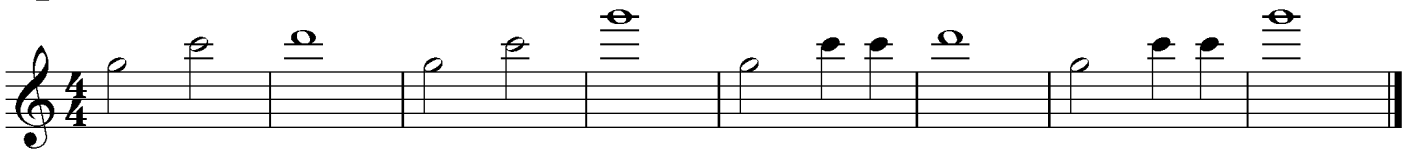
Pitch tendency: G above the staff tends to be sharp

1 G whiz

1st time use overblow fingering, 2nd time use 3rd octave fingering



2 Gonna rock



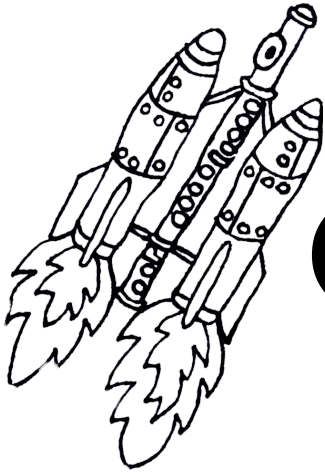
3 Running



4 Half stepping



INTO THE FLUTOSPHERE



G[#]/A^b

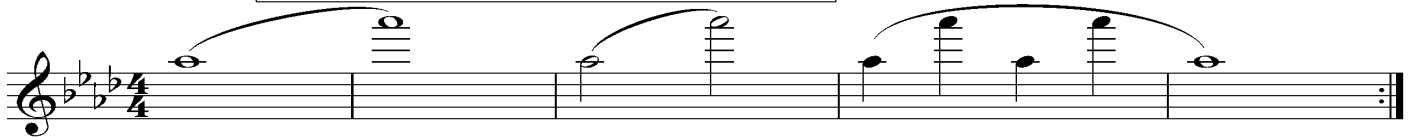


G[#]/A^b vents the thumb and first finger from the lower octave. Use thumb-2-3-E flat key.

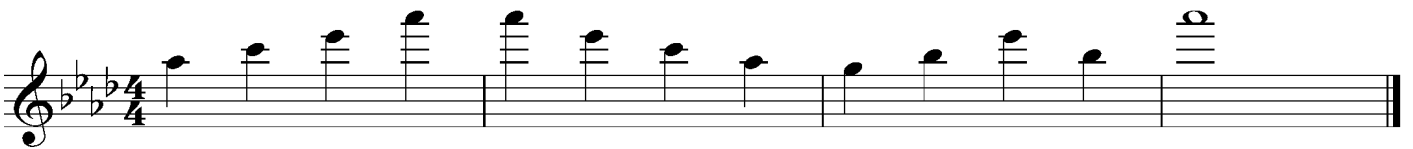
Pitch tendency: G[#]/A^b above the staff tends to be sharp

1 A flat chance

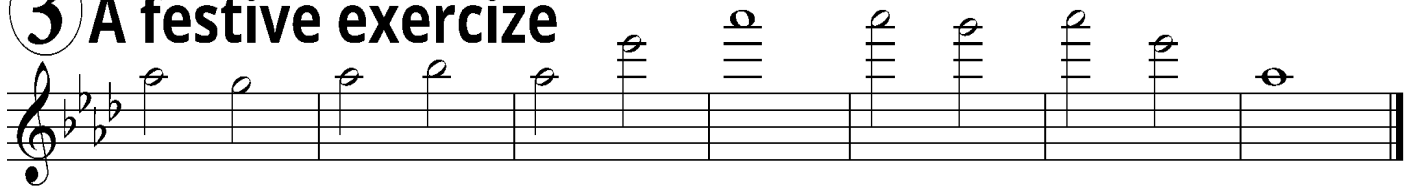
1st time use overblow fingering, 2nd time use 3rd octave fingering



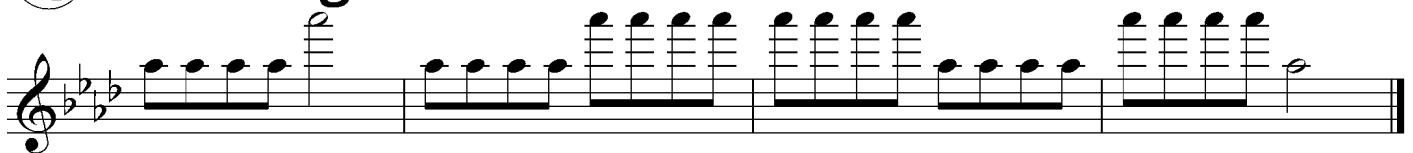
2 A fun and a five...



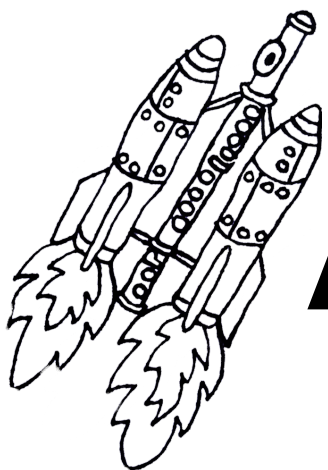
3 A festive exercise



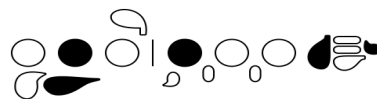
4 A fleeting moment



INTO THE FLUTOSPHERE



A

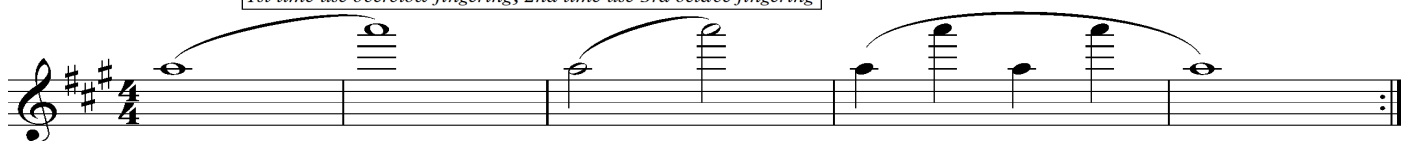


High A probably has the most unusual fingering combination on the flute. Use thumb-2-4-E flat key.

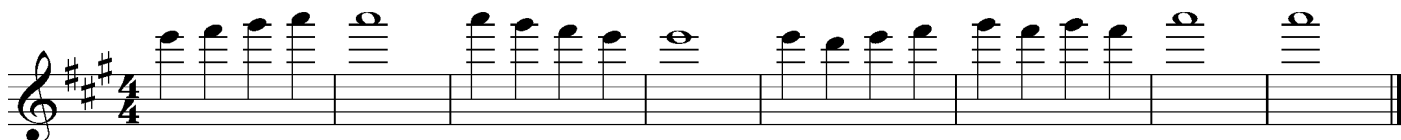
Pitch tendency: High A tends to be sharp

① A all the way

1st time use overblow fingering, 2nd time use 3rd octave fingering



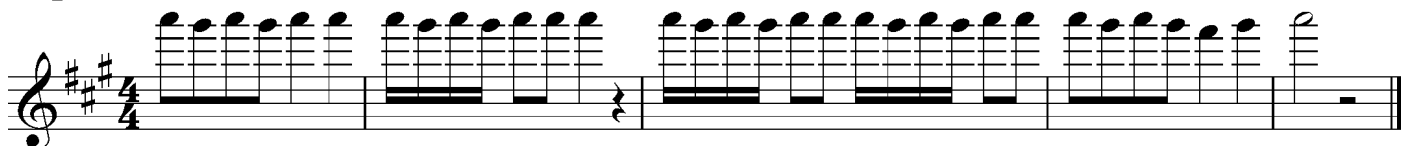
② A rising tide



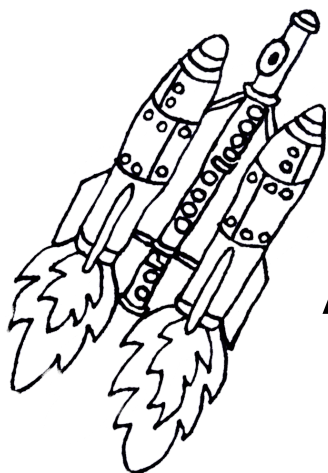
③ A ighth notes



④ A very brisk walk



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A#/Bb

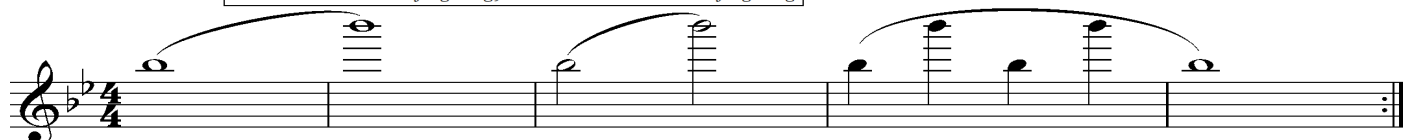


A#/Bb only needs a few keys-just thumb, 4, and the D trill key (the little key right next to 4)

Pitch tendency: High A#/Bb tends to be flat

1 Adventures in B flat

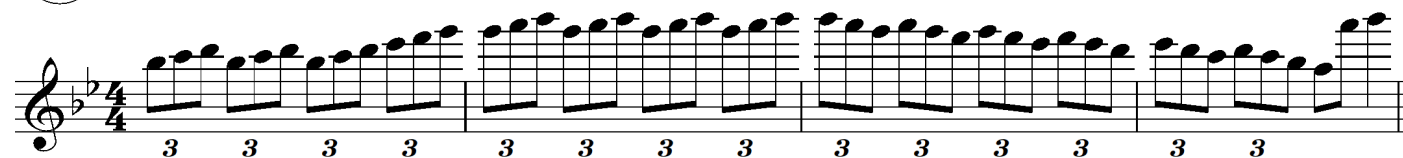
1st time use overblow fingering, 2nd time use 3rd octave fingering



2 Best friends



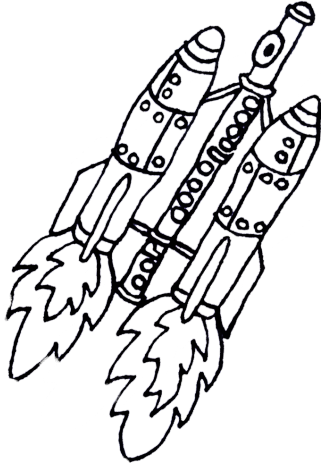
3 Before there were three



4 Beautiful flight of fancy



INTO THE FLUTOSPHERE



B

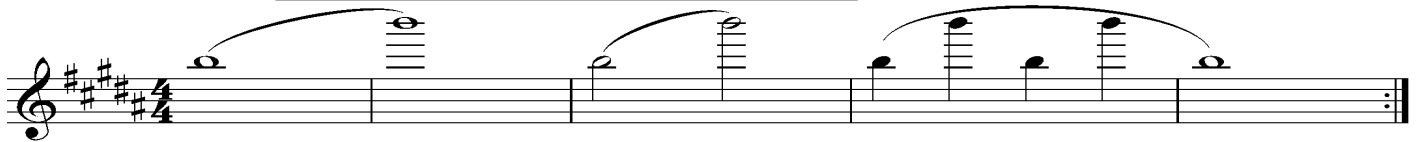


B uses thumb-1-4 and the D# trill key-the little key between 5 and 6

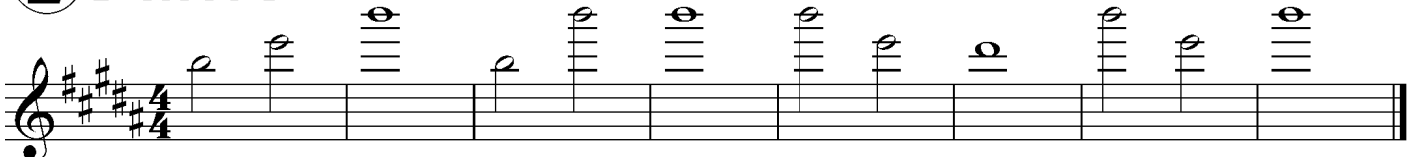
Pitch tendency: High B tends to be sharp

1 B all you can B

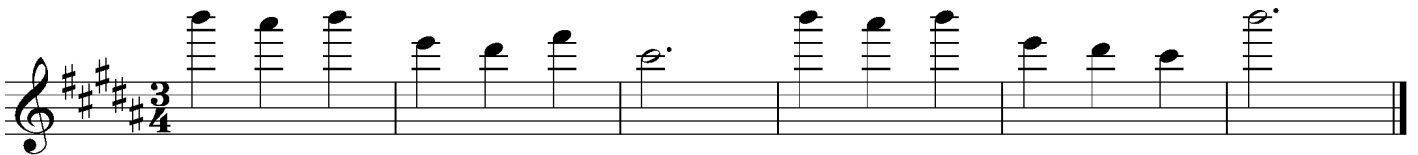
1st time use overblow fingering, 2nd time use 3rd octave fingering



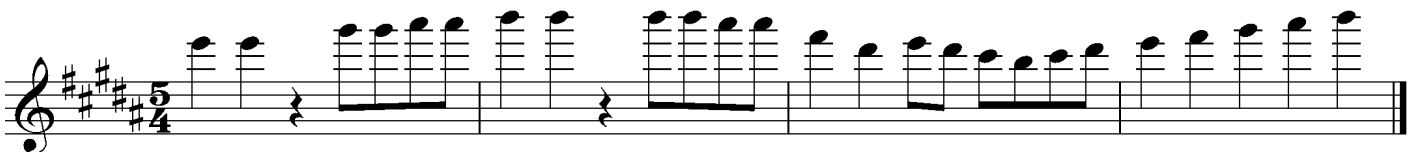
2 B more



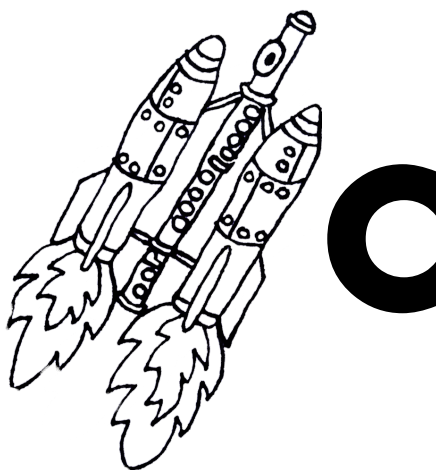
3 B-3



4 Before the 5



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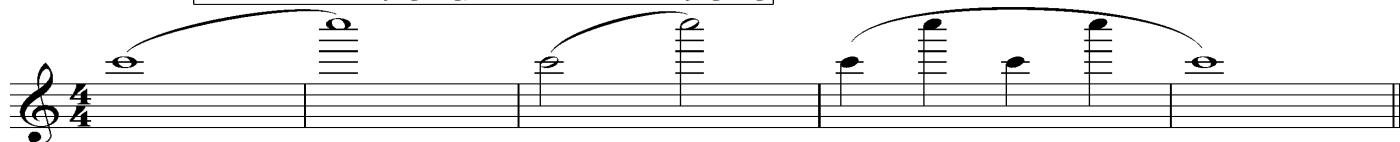


C is 1-2-3-G#-4, and use your B key if you have a flute with a B foot. If you can play that note, congratulations! You've gone to the highest note in this book! But not the highest note on the flute...

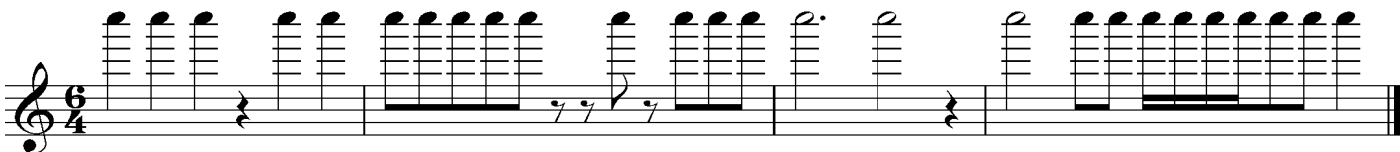
Pitch tendency: High C tends to be sharp

1 C farther

1st time use overblow fingering, 2nd time use 3rd octave fingering



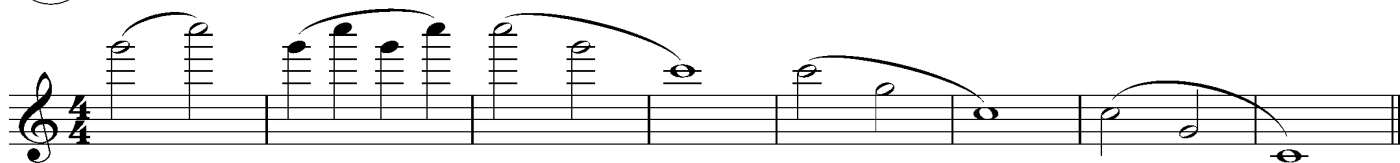
2 Count the Cs



3 Have a look-C



4 Conclusions



Harmonic/Lip Slur Exercises

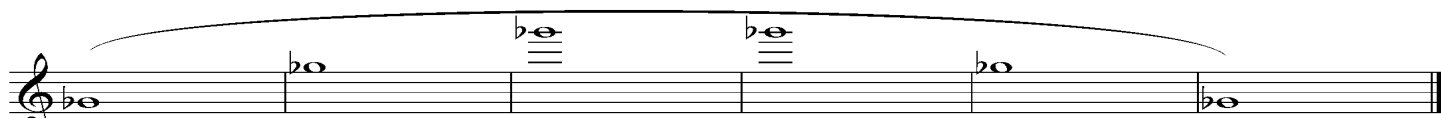
The following pages contain several lip slur patterns that cover the whole range of the flute. As you begin to practice these exercises, always start slow and work on getting the most relaxed and full sound possible. Transition between each note as smoothly as you can, with the minimum amount of air and embouchure change.

Do as much as you can of each pattern every day. If the higher notes don't come out right away, *that's ok*. High notes take time to develop, and are a direct result of having a good sound in the lower notes. Keep practicing and you'll get there!

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Pattern 1: full range harmonics

Play each line twice through, first with only the fingering for the lowest note (for example, use T-1-2-3-4-5-6 for all the notes of the first line, then use the standard fingerings the second time through. The second line of each group eliminates the middle harmonic to further increase your flexibility.



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Pattern 2: octave harmonics

These are all of the introductory harmonic exercises used to introduce each note. Just as in the rest of the book, use the harmonic fingering the first time and the standard fingering the second time though.

The image displays ten musical staves, each representing a different note. Each staff begins with a whole note followed by a slur covering four measures. The first measure of the slur contains a harmonic fingering symbol (a circle with a vertical line through it). The subsequent three measures contain standard fingering symbols (three vertical lines). The notes and their corresponding harmonic fingering symbols are as follows:

- Staff 1: C4 (C-clef), harmonic symbol on C4.
- Staff 2: D4 (C-clef), harmonic symbol on D4.
- Staff 3: E4 (C-clef), harmonic symbol on E4.
- Staff 4: F4 (C-clef), harmonic symbol on F4.
- Staff 5: G4 (C-clef), harmonic symbol on G4.
- Staff 6: A4 (C-clef), harmonic symbol on A4.
- Staff 7: B4 (C-clef), harmonic symbol on B4.
- Staff 8: C5 (F-clef), harmonic symbol on C5.
- Staff 9: D5 (F-clef), harmonic symbol on D5.
- Staff 10: E5 (F-clef), harmonic symbol on E5.

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Pattern 3: up and down

This pattern will help your flexibility. Just as the others, play it first with the fingering of the lowest note, then with the standard fingerings.

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The musical score consists of ten staves, each containing two measures of music. The notation includes various note values (quarter, eighth, and sixteenth notes), rests, and accidentals (sharps, flats, and naturals). Phrasing is indicated by curved lines (arcs) spanning across measures. The key signature changes between staves, alternating between one flat (B-flat) and one sharp (F-sharp). The first staff begins with a treble clef and a key signature of one flat. The second staff begins with a treble clef and a key signature of one sharp. This pattern continues for the remaining staves. The music is written in a style that suggests a melodic line for a flute, with a focus on rhythmic patterns and phrasing.

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Two Octave Scales

C# major



D major



E♭ major



E major



F major



G♭ major



G major



A♭ major



A major



B♭ major



B major



C major



C major (Three Octaves)



