
CLARINET FUNDAMENTALS

A Workbook for Developing
Clarinet Technique



School of Music

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A Workbook for Developing Clarinet Technique

By Joshua Gardner

The purpose of this workbook is to present the performance fundamentals necessary to develop satisfactory technique on the clarinet. The exercises include long tones, scales, arpeggios, thirds, and various single and multiple articulation exercises. With proper instruction, they will help you develop adequate air control, correct and agile finger motion, proper hand position, flexible intonation, and articulation accuracy and speed. By learning these fundamentals and committing them to muscle memory, you will be able to make music more efficiently and with fewer limitations. All of the exercises are presented in two octaves. You should expand them to three octaves gradually as you become comfortable with the upper register. Fingerings are provided for basic patterns (major/minor scales, arpeggios, and thirds) and the third octaves. Blank fingering diagrams are provided at the end of this workbook for recording custom fingerings.

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Intonation Guide for Long Tones

Being able to play in-tune with a tuner does not necessarily equate to being able to play in-tune within an ensemble. Certain pitch adjustments need to be made when playing in ensembles. Using a tuner provides the opportunity to learn the general tuning tendencies of our instruments and how to adjust to those tendencies. Once we know our instrument's tendencies, we can better predict how to manipulate a given note to be in-tune within a performance context. Below is a table indicating the pitch changes necessary to play a given interval in-tune (for Just Intonation). In addition to playing Long Tones with a tuner, play them with a drone to practice adjusting to these various intervals. Try to eliminate the "beats" between the two tones. Listen carefully for a third tone – the difference tone (also known as the resultant tone, combination tone, or Tartini tone), which is defined by the frequency difference between you and the drone. For nearly every interval above the drone pitch, some adjustment will be required to be "in tune."

To lower the pitch, it may be necessary to close tone holes partially or completely, depending on how much adjustment is required. To raise the pitch, try to avoid using excessive embouchure pressure – this will affect the sound detrimentally. A better option is to open tone holes to raise the pitch. Experimentation will yield the best results with your particular setup.

Pitch adjustments required for Just Intonation

Interval	Ratio	Adjustment (cents)
Unison	1:1	0.00
Minor 2 nd	16:15	+11.73
Major 2 nd	9:8	+3.91
Minor 3 rd	6:5	+15.64
Major 3 rd	5:4	-13.69
Perfect 4 th	4:3	-1.96
Tritone (septimal)	7:5	-17.48
Perfect 5 th	3:2	+1.96
Minor 6 th	8:5	+13.69
Major 6 th	5:3	-15.64
Minor 7 th (septimal)	7:4	-31.17
Major 7 th	15:8	-11.73
Octave	2:1	0.00

Long Tones

Long Tones

Resonance Fingerings

Major & Minor Scales

C major

A natural minor

A harmonic minor

A melodic minor

F major

D natural minor

D harmonic minor

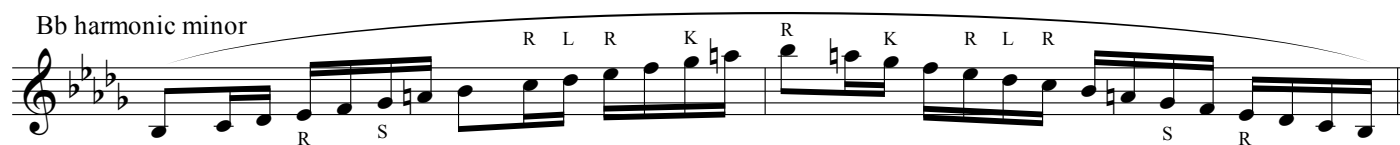
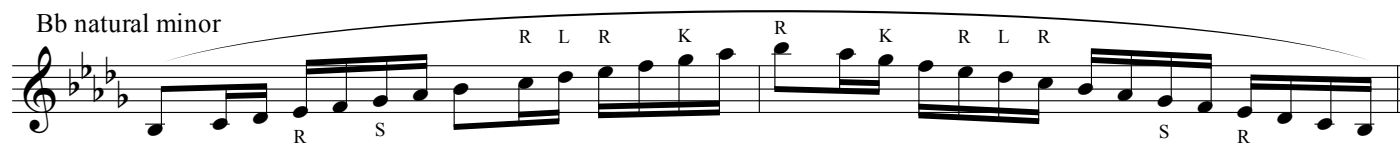
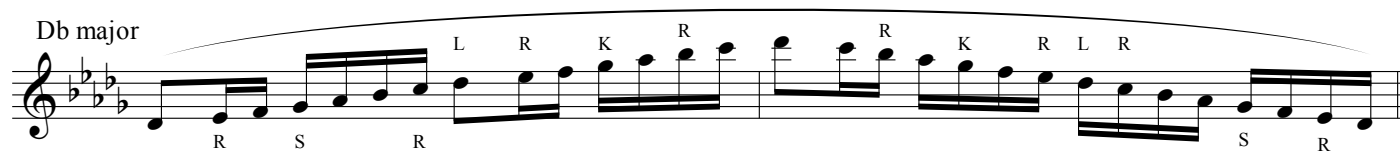
D melodic minor

Bb major

G natural minor

G harmonic minor

G melodic minor



Gb major

Eb natural minor

Eb harmonic minor

Eb melodic minor

B major

G# natural minor

G# harmonic minor

G# melodic minor

E major

C# natural minor

C# harmonic minor

C# melodic minor

A major



F# natural minor



F# harmonic minor



F# melodic minor



D major



B natural minor



B harmonic minor



B melodic minor



G major



E natural minor



E harmonic minor



E melodic minor



Major & Minor Arpeggios

C major

A Minor

F major

D minor

Bb major

G minor

Eb major

C minor

Ab major

F minor

Db major

Bb minor

7

1/2 1/2 1/2 1/2

Gb major

Eb minor

B major

G# minor

E major

C# minor

A major

F# minor

D major

B minor

G major

E minor

Major & Minor Scales in Thirds

C major

A minor

F major

D minor

Bb major

G minor

Eb major

C minor

Ab major

F minor

Db major

Bb minor

Gb major

Eb minor

B major

G# minor

E major

C# minor

A major

F# minor

D minor

B minor

G major

E minor

10

Additional Scales and Arpeggios

Chromatic Scale



Chromatic Scale in Major Thirds



Chromatic Scale in Minor Thirds



Minor Scale Forms

Natural: follows key signature



Harmonic: raised 7th ascending and descending



Melodic: raised 6th and 7th ascending; natural descending



Whole Tone Scales

Root F



Root E



Octatonic Scales

Root E



Root F



Root F#



Blues Scales

The image displays 12 musical staves, each containing two measures of music. The staves are organized into three groups of four, each representing a different blues scale. The first group (staves 1-4) is in D-flat major (two flats). The second group (staves 5-8) is in E-flat major (three flats). The third group (staves 9-12) is in F major (one flat). Each staff contains two measures of music, with a slur spanning across them. The notes are primarily eighth and quarter notes, with some half notes and accidentals (sharps, flats, naturals) indicating the specific scale.

Diminished Seventh Arpeggios

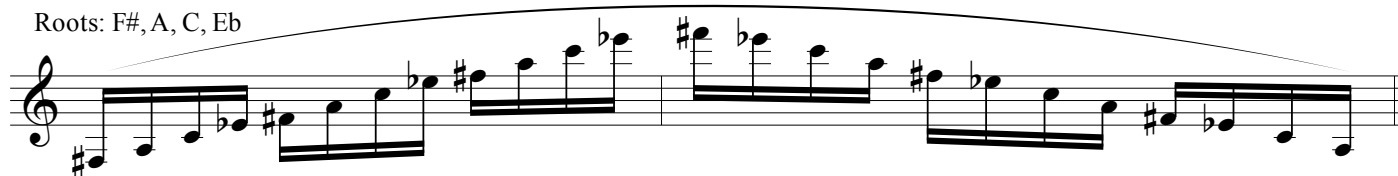
Roots: E, G, Bb, Db



Roots: F, Ab, B, D



Roots: F#, A, C, Eb

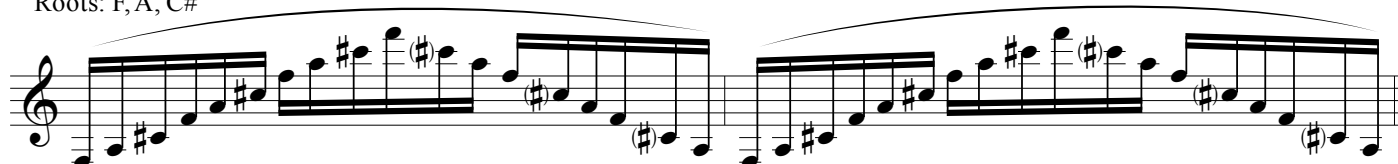


Augmented Arpeggios

Roots: E, G#, C



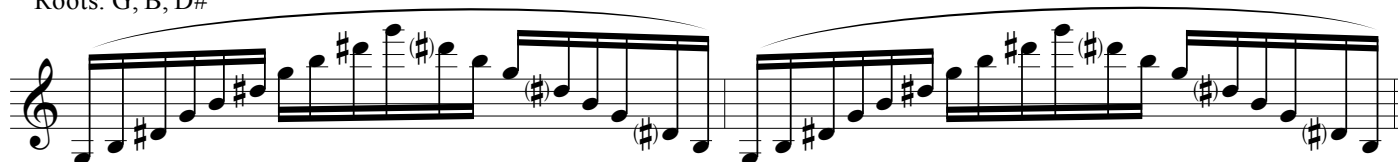
Roots: F, A, C#



Roots: Gb, Bb, D



Roots: G, B, D#



Major-Minor Seventh Arpeggios

This image displays twelve staves of musical notation, each representing a different key signature for Major-Minor Seventh Arpeggios. The notation is organized into two groups of six staves each. The first group covers the keys of C major, F major, B-flat major, E-flat major, A-flat major, and D-flat major. The second group covers the keys of C major, F major, B major, E major, A major, and D major. Each staff contains two measures of music, with a slur spanning across both measures. The notation includes treble clefs, a common time signature (C), and various accidentals (sharps, flats, and naturals) to indicate the specific notes for each key. The arpeggios are written in a continuous, flowing manner, typical of technical exercises for piano or guitar.

Minor-Minor Seventh Arpeggios

The image displays a musical score for "Minor-Minor Seventh Arpeggios". It consists of 11 staves of music, each containing two measures. The music is written in treble clef, 4/4 time, and features a key signature of one flat (Bb). The arpeggios are organized into three groups of four staves each, with the final group containing only two staves. Each staff begins with a key signature change to Bb. The first group of four staves (staves 1-4) shows the arpeggio starting on C4. The second group of four staves (staves 5-8) shows the arpeggio starting on D4. The third group of two staves (staves 9-10) shows the arpeggio starting on E4. The notation includes eighth and sixteenth notes, with beams connecting them to indicate the arpeggiated sequence. A final double bar line is present at the end of the 11th staff.

Major-Major Seventh Arpeggios

This image displays twelve staves of musical notation, each representing a different key signature for Major-Major Seventh Arpeggios. The notation is organized into two groups of six staves each. The first group covers the keys of C major, D major, E major, F major, G major, and A major, all in treble clef. The second group covers the keys of B major, C# major, D# major, E# major, F# major, and G# major, also in treble clef. Each staff contains two measures of music, with a slur spanning across both measures. The notes are written in a way that clearly shows the interval of a major seventh between the first and last notes of each arpeggio. The first measure of each staff shows the arpeggio starting on the first line (C4), and the second measure shows it starting on the second line (D4). The notation uses standard musical symbols: treble clef, common time signature (C), and various note values (quarter, eighth, and sixteenth notes) to represent the arpeggiated chords.

Half-Diminished Seventh Arpeggios

This image displays 12 staves of musical notation, each representing a different key signature for half-diminished seventh arpeggios. The notation is organized into two groups of six staves each, separated by a double bar line. The first group covers the keys of C minor, D minor, E minor, F minor, G minor, and A minor. The second group covers the keys of B minor, C major, D major, E major, F major, and G major. Each staff contains two measures of music, with the first measure showing the arpeggio in one direction and the second measure showing it in the opposite direction. The notation includes treble clefs, a common time signature (C), and various accidentals (sharps, flats, and naturals) to indicate the specific notes in each key. The arpeggios are written as eighth notes, and the two measures of each staff are connected by a slur.

Third-Octave Guide

Scales

12 scales are provided, each consisting of two measures of music. The scales are arranged in a 4x3 grid. The scales are:

- Scale 1: G major (G6.1, A6.2, B6.1)
- Scale 2: A major (G6.1, A6.2)
- Scale 3: B major (G#6.2, A6.2)
- Scale 4: C major (G#6.2, A6.2)
- Scale 5: D major (G6.1)
- Scale 6: E major (G6.1, A6.2)
- Scale 7: F major (G6.1, A6.2)
- Scale 8: G major (G6.1, A6.2)
- Scale 9: A major (A6.2, G6.1)
- Scale 10: B major (A6.2, G6.1)
- Scale 11: C major (A6.2, G6.1)
- Scale 12: D major (Eb6.1, G6.1, A6.2)

The musical score consists of 12 staves, each containing a series of notes and chords. The notes are primarily eighth and quarter notes, often beamed together. Chord labels are placed above specific notes, indicating the harmonic context. The labels include:

- Staff 1:** Eb6.1, G6.1, Ab6.2, Ab6.2, G6.1
- Staff 2:** Eb6.1, G6.1, Ab6.2, Ab6.2, G6.1, Eb6.1
- Staff 3:** Eb6.1, G6.1, Ab6.2, B6.1, B6.1, Ab6.2, G6.1, Eb6.1
- Staff 4:** Eb6.1, G6.1, A6.2, B6.1, Ab6.2, G6.1, Eb6.1
- Staff 5:** Eb6.1, G6.1, Ab6.2, G6.1, Eb6.1
- Staff 6:** * (on a note), *
- Staff 7:** *
- Staff 8:** *, Ab6.2, Ab6.2, *
- Staff 9:** *, Ab6.2, Ab6.2, *
- Staff 10:** *, A6.2, A6.2, *
- Staff 11:** *, G6.1, A6.2, Ab6.2, *

The notes are written on a five-line staff, with some notes having a flat (b) or a sharp (#) symbol. The overall structure suggests a sequence of chords and melodic lines, possibly for a guitar solo or a specific musical exercise.

The image displays a musical score for guitar, organized into 12 staves. The first four staves are in E-flat major (one flat), and the last eight staves are in G major (two sharps). The score includes various chords (e.g., Eb6.1, Ab6.2, B6.2, G#6.2, G6.1, A6.2, B6.1) and asterisks (*) indicating specific notes or techniques. The notation includes treble clefs, key signatures, and chord symbols above the notes.

This musical score is written for guitar on 12 staves. The notation includes various chords and melodic lines. The chords are labeled with boxes: G#6.2, A6.2, G#6.2, G6.1, A6.2, B6.1, B6.2, A6.2, G6.1, G#6.2, B6.2, A6.2, G6.1, G6.3, D#6.1, and an asterisk (*).

Third-Octave Arpeggios

The musical score consists of 12 staves, each containing two measures of eighth-note arpeggios. The notes are as follows:

- Staff 1: G4, A4, B4, C5, G4, A4, B4, C5
- Staff 2: G4, A4, B4, C5, G4, A4, B4, C5
- Staff 3: F#4, G4, A4, B4, C5, F#4, G4, A4
- Staff 4: F4, G4, A4, B4, C5, F4, G4, A4
- Staff 5: F4, G4, A4, B4, C5, F4, G4, A4
- Staff 6: E4, F4, G4, A4, B4, C5, E4, F4
- Staff 7: D4, E4, F4, G4, A4, B4, C5, D5
- Staff 8: D4, E4, F4, G4, A4, B4, C5, D5
- Staff 9: C4, D4, E4, F4, G4, A4, B4, C5
- Staff 10: C4, D4, E4, F4, G4, A4, B4, C5
- Staff 11: B3, C4, D4, E4, F4, G4, A4, B4
- Staff 12: B3, C4, D4, E4, F4, G4, A4, B4

Chord labels and their positions:

- Staff 1: G6.2 (above G4), G6.2 (above G4), A6.1 (above C5)
- Staff 2: A6.2 (above C5), A6.2 (above C5)
- Staff 3: G6.2 (above G4), G6.2 (above G4)
- Staff 4: Eb6.1 (above F4), Eb6.1 (above F4), G6.2 (above G4), G6.2 (above G4), Eb6.1 (above E4), Eb6.1 (above E4)
- Staff 5: Eb6.1 (above F4), Ab6.3 (above G4), Eb6.1 (above F4), Ab6.3 (above G4)
- Staff 6: Ab6.3 (above G4), Ab6.3 (above G4), Eb6.1 (above E4), Eb6.1 (above E4)
- Staff 7: Eb6.1 (above F4), Eb6.1 (above F4), Eb6.1 (above E4), Eb6.1 (above E4)
- Staff 8: D#6.1 (above D4), B6.1 (above B4), D#6.1 (above D4), D#6.1 (above D4), Ab6.3 (above G4), D#6.1 (above D4)
- Staff 9: G#6.3 (above G4), G#6.3 (above G4)
- Staff 10: A6.1 (above C5)
- Staff 11: A6.2 (above C5), A6.2 (above C5), B6.1 (above B4)
- Staff 12: G6.2 (above G4)

Third-Octave Thirds

The exercise consists of 12 staves of music, each containing a sequence of eighth notes. The notes are grouped in pairs, representing thirds. The labels above the notes indicate the chord quality and octave number for each pair. The sequence of labels across the staves is as follows:

- Staff 1: G6.2, A6.2, G6.1, B6.1, A6.2, B6.1
- Staff 2: A6.2, B6.1, G6.1, A6.2, G6.2
- Staff 3: G#6.2, A6.2, G#6.2, B6.1
- Staff 4: A6.2, G6.2
- Staff 5: G6.2
- Staff 6: G6.2, A6.2, G6.1, B6.1, A6.2, B6.1
- Staff 7: A6.2, G6.1, A6.2, G6.2
- Staff 8: Eb6.1, Eb6.1, G6.2, A6.2, G6.1, A6.2
- Staff 9: G6.1, A6.2, G6.2, Eb6.1, Eb6.1
- Staff 10: G6.2, A6.2
- Staff 11: G6.2, Eb6.1, Eb6.1

Eb6.1 G6.2 Ab6.2 G6.1 Ab6.2
 Ab6.2 G6.1 Ab6.2 G6.2 Eb6.1 Eb6.1
 Eb6.1 Eb6.1 G6.2 A6.2 G6.1 B6.1 A6.2 B6.1
 Ab6.2 G6.1 Ab6.2 G6.2 Eb6.1 Eb6.1
 * Eb6.1 G6.2 Ab6.2 G6.1
 Ab6.2 G6.2 Eb6.1 *
 G6.2
 *
 Eb6.1 Ab6.2 G6.1 Ab6.2
 Ab6.2 Ab6.2 Eb6.1 *
 * Eb6.1 G6.2 A6.2 G6.1 A6.2
 Ab6.2 Eb6.1 *

The musical score consists of 12 staves of music. The notation includes various chords and notes, with some notes marked with an asterisk (*) and others with a cross (x). Chord labels are provided for many notes, such as Eb6.1, Ab6.2, Cb6.1, D#6.1, G#6.2, B6.1, G6.2, G6.1, A6.2, and B6.1. The music is written in treble clef with a key signature of one flat (Bb).

G#6.2 A6.2 G#6.2 B6.1
 A6.2 G#6.2
 * D#6.1 G#6.2
 G6.2 A6.2 G6.1 B6.1 A6.2 B6.1
 B6.1 A6.2 B6.1 G6.1 A6.2 G6.2
 G#6.2 G#6.2 B6.1
 B6.1 G6.1 A6.2 G6.2
 G6.2 A6.2
 G6.1 G6.2 A6.2
 *

Practice Techniques

Rhythm Patterns

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. 

9. 

10. 

Other Practice Techniques

Add a note



Displaced Accents



Intermediate Single & Multiple Articulation Exercises

1. Pre-Langenus #1



etc.

2. Pre-Langenus #2



etc.

3. Endurance with a single note



etc.

4. Five-note scales



etc.

5. Endurance with scales



etc.

Single Articulation

Adapted from Langenus, pg. 22

A musical score for a single articulation exercise, consisting of ten staves of music. The key signature is one sharp (F#) and the time signature is common time (C). The score is divided into measures, with measure numbers 5, 10, 14, 19, 23, 28, 32, 37, and 40 marked at the beginning of their respective staves. The music features a variety of rhythmic patterns, including eighth and sixteenth notes, and rests. The final measure of the piece is a whole note.

5

10

14

19

23

28

32

37

40

Single/Multiple Articulation

Adapted from Languens, pg. 23

This musical score is written for a single melodic line in 8/8 time, featuring a variety of articulation techniques. The key signature has two flats (B-flat and E-flat). The score is divided into eight measures, each starting with a measure number (1, 5, 9, 13, 17, 21, 25, 29). The notation includes numerous eighth and sixteenth notes, many of which are beamed together. Articulation is indicated by various symbols: slurs, accents (>), and dynamic markings (*p*, *f*, *mf*). Slurs are used to group notes across measures, often with dynamic markings at the beginning and end. Accents are placed over specific notes to indicate emphasis. Dynamic markings include *p* (piano), *f* (forte), and *mf* (mezzo-forte). The score concludes with a final measure containing a whole note and a fermata.

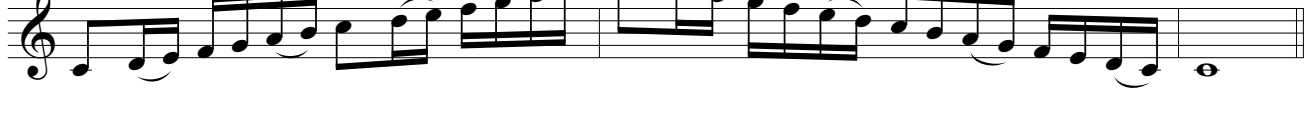
Multiple Articulation

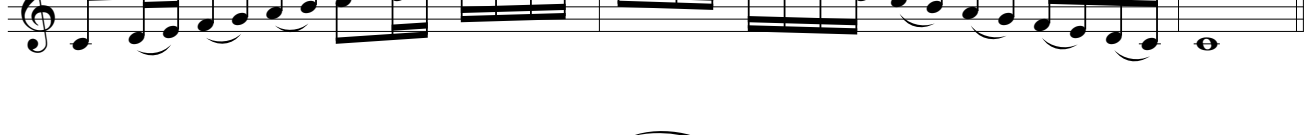
This musical score, titled "Multiple Articulation", is written in 4/4 time and consists of 32 measures. The notation is presented on a single staff with a treble clef and a key signature of one sharp (F#). The score is divided into systems, with measure numbers 3, 6, 9, 11, 13, 15, 17, 20, 23, 25, and 28 marking the beginning of new lines. The piece explores a variety of articulation techniques, including slurs, accents, and various note values (quarter, eighth, and sixteenth notes). The first system (measures 1-4) features eighth-note patterns with slurs and accents. The second system (measures 5-8) continues with eighth-note patterns, including slurs and accents. The third system (measures 9-12) introduces sixteenth-note patterns with slurs and accents. The fourth system (measures 13-16) features sixteenth-note patterns with slurs and accents. The fifth system (measures 17-20) continues with sixteenth-note patterns, including slurs and accents. The sixth system (measures 21-24) features sixteenth-note patterns with slurs and accents. The seventh system (measures 25-28) introduces sixteenth-note patterns with slurs and accents. The eighth system (measures 29-32) features sixteenth-note patterns with slurs and accents. The score concludes with a double bar line at the end of measure 32.

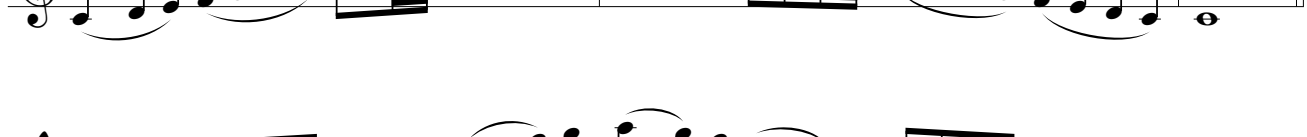
Articulation Patterns

1. 

2. 

3. 

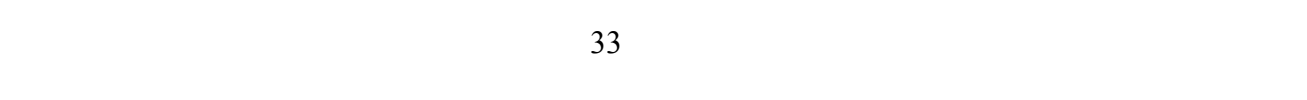
4. 

5. 

6. 

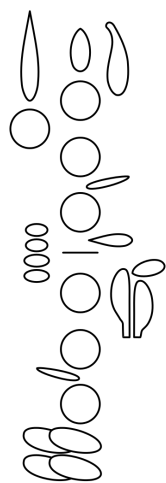
7. 

8. 

9. 

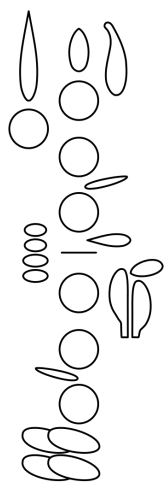
CUSTOM FINGERING CHART

Pitch: _____



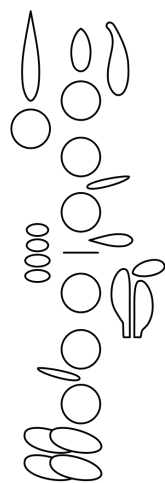
Notes:

Pitch: _____



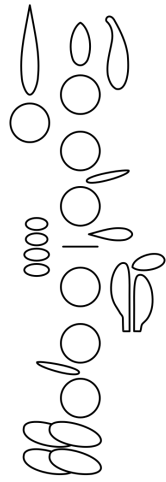
Notes:

Pitch: _____



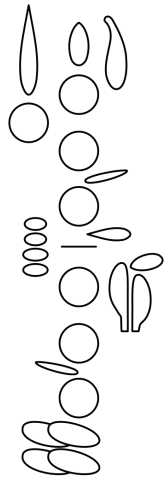
Notes:

Pitch: _____



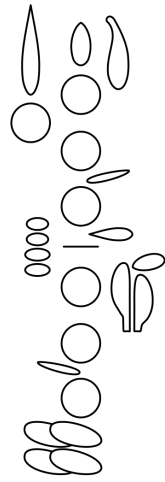
Notes:

Pitch: _____



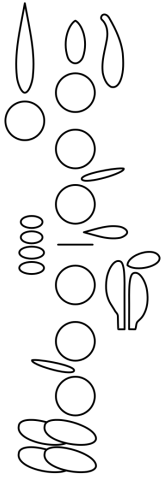
Notes:

Pitch: _____



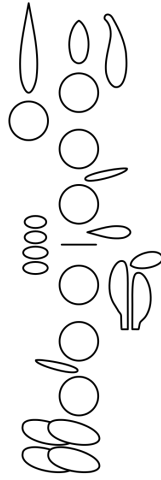
Notes:

Pitch: _____



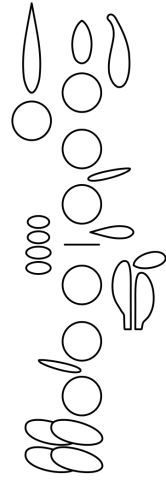
Notes:

Pitch: _____



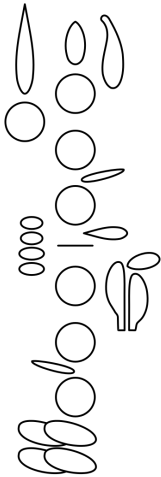
Notes:

Pitch: _____



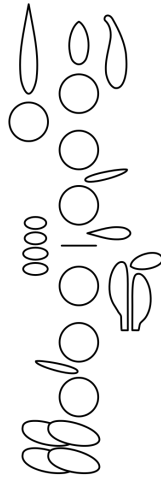
Notes:

Pitch: _____



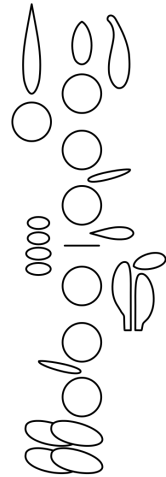
Notes:

Pitch: _____



Notes:

Pitch: _____



Notes:

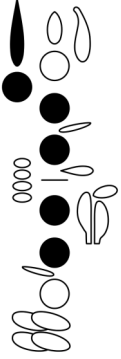
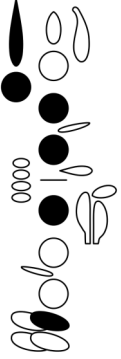
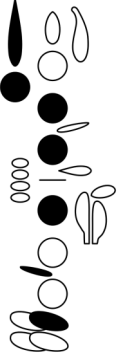
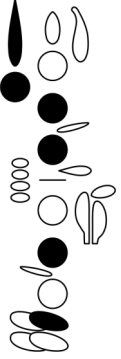
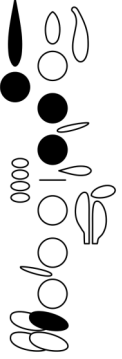
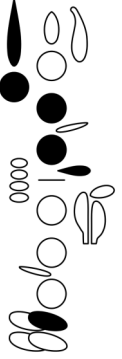
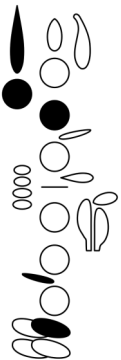
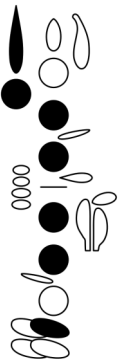
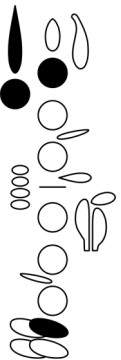
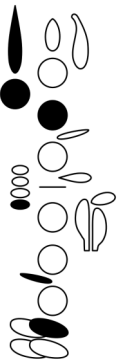
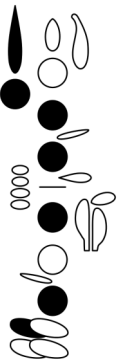
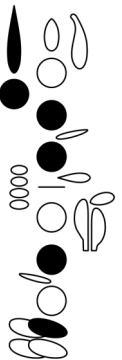
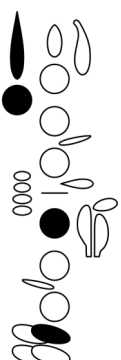
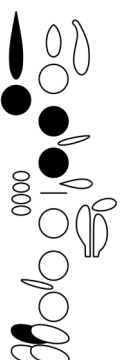
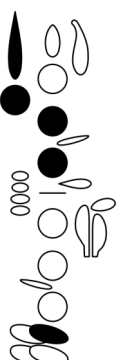
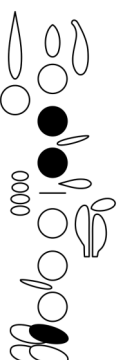
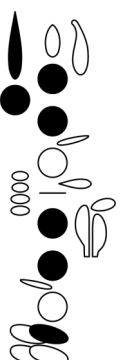
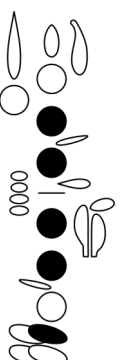
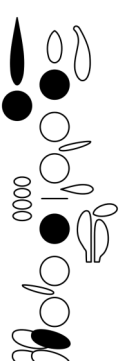
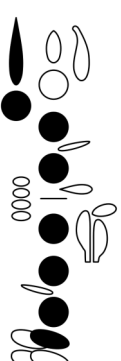
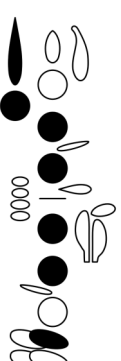
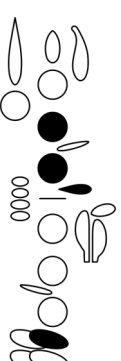
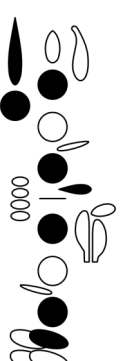
Third-Octave Fingering Guide

The following fingering chart includes fingerings you can use to play the third octave of all major and minor scales, arpeggios, and thirds. The fingerings are ordered chromatically with the pitch and octave indicated in the label. Notes with more than one fingering option have the specific fingering indicated above the note. Notes without a label use the indicated fingering in the chart. When first learning these third-octave exercises, fold out the fingering chart so it is visible next to the page with the exercises. Once you become familiar with the fingerings, try to play the exercises with the chart folded back into the book.

Fingering Notes

- Db/C#6 Stable fingering; avoid using the RH Eb key
- D6 Stable fingering; sometimes the Eb key is unnecessary—check tuning
- Eb/D#6.1 Stable fingering, can be flat on some clarinets
- Eb/D#6.2 Tends to be flat—check tuning; makes Db/Eb transitions much easier
Note: An Eb marked with an * indicates that Eb6.2 is technically easier to execute. However, if the pitch is too low, Eb6.1 should be used.
- E6 Requires proper voicing to avoid squeaking to A6; half-holing the first LH tone hole improves stability
- F6 Relatively stable fingering; can be flat on some clarinets
- F#6 Tends to be flat—the RH sliver key will help raise pitch
- G6.1 Requires proper voicing to avoid squeaking to B6 or dropping to C#6
- G6.2 Excellent response; may be slightly flat—the RH sliver key will help raise pitch
- G6.3 RH sliver key necessary to raise pitch; proper voicing
- Ab/G#6.1 Fantastic response and intonation; awkward for technical passages
- Ab/G#6.2 Requires accurate voicing for tuning and response; excellent for scalar passages
- Ab/G#6.3 Great for leaps/arpeggios; flexible intonation; can be unstable
- A6.1 Fantastic response; can be sharp; excellent response
- A6.2 Good response, but not as good as A6.1. Slightly lower pitch than A6.1
- Bb/A#6 Requires accurate voicing; excellent pitch; easy response
- B6.1 Stable response, pitch, and sound; requires accurate voicing for leaps and scalar passages
- B6.2 Slightly flat; excellent response—great for leaps
- C7 Stable fingering; excellent, flexible pitch; LH G# key can be added to raise pitch, if necessary
- Db/C#7 Full sound; can be unstable; sharp
- D7 Excellent sound and pitch; great for scalar passages; requires accurate voicing to avoid G6 or B6
- Eb/D#7 Can be sharp or flat, depending on reed—the LH C#/G# key will raise the pitch. Articulation may be necessary when leaping to Eb7 from Bb6 in the Eb major and minor arpeggios.
- E7 Can be sharp or flat, depending on reed; requires accurate voicing
- F7 Tends to be flat; very dependent on reed

Third-Octave Fingering Guide

Db/C#6 	D6 	Eb/D#6.1 	Eb/D#6.2 	E6 	F6 
Gb/F#6 	G6.1 	G6.2 	G6.3 	Ab/G#6.1 	Ab/G#6.2 
Ab/G#6.3 	A6.1 	A6.2 	Bb/A#6 	B6.1 	B6.2 
C7 	Db/C#7 	D7 	Eb/D#7 	E7 	F7 