



Scales and Arpeggios

for Trumpet Players of all ages

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Table of Contents

Page #

3	Introduction
4	Sample Piano Keyboard
5	The Chromatic Scale
8	Major Scales
12	Minor Scales
19	Arpeggios
32	The Modes
34	The Dorian Mode
37	The Phrygian Mode
40	The Lydian Mode
43	The Mixolydian Mode
46	The Locrian Mode
49	Pentatonic Scales
52	The Blues Scales
54	Whole Tone Scales
56	Diminished Scales
61	Augmented Scales
62	BeBop Scales

Scales- Introduction

Scales and arpeggios are part of our basic training in the technique of our instrument. Fluency improves all aspects of our playing and allows our brains and fingers to recognize patterns quickly and efficiently.

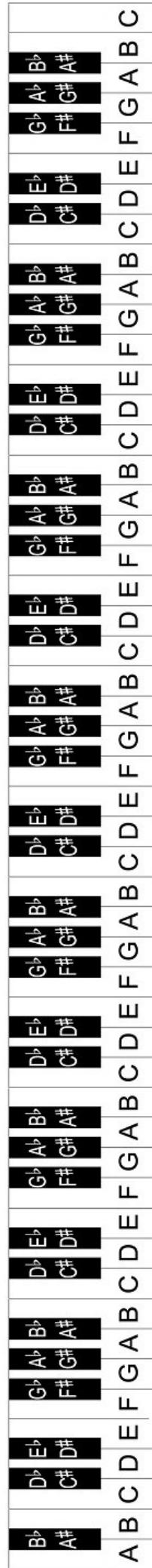
The scales in this booklet are arranged so that musicians can tackle them in order. Players should memorize each page before moving on to the next step. Even brand-new beginners can start working on scales. When you have a scale memorized you must keep practicing it to keep in "in your fingers". Scale study is a cumulative process- we keep adding to our list of scales that we are practicing each day.

A metronome is an essential tool for practicing these "patterns"- fingers, tongue and brain work efficiently only when there is a steady pulse. You should play ONLY as fast as you can play perfectly- learning patterns are about muscle memory, and players will only improve through repetition. If you practice a scale incorrectly 5 times and correctly 1 time the body will remember whatever you did the most! So, go slow enough to get it right each time. Ultimately, this will lead to faster progress.

Each type of scale should be practiced slurred at first, to establish connected wind. After the pattern is memorized the player should practice with different articulations; all tongued, all legato tongued, slur two tongue two, etc.

This booklet serves as an introduction- advanced study requires other resources, such as Arban's Complete Conservatory Method, and Clarke's Technical Studies, etc. See your teacher for a list of these resources.

88-Key Piano Keyboard Layout



www.Piano-Keyboard-Guide.com

The Chromatic Scale

The Chromatic Scale consists of ALL half-steps (adjacent keys on the piano keyboard).

Going up, we spell the chromatic scale with sharps (#), as sharps raise the pitch $\frac{1}{2}$ step.

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

Going down, we spell the chromatic scale with flats (b), as flats lower the pitch $\frac{1}{2}$ step.

C-Bb-A-Ab-G-Gb-F-E-Eb-D-Db-C

Beginners benefit greatly from practicing the chromatic scale, as they are exposed to all the notes and fingerings.

More advanced players should be able to play the chromatic scale starting on any note and continuing throughout the player's full range.

Use a metronome! A steady pulse is crucial for pattern learning!

Chromatic Scale- Beginner

g-g1

A musical staff in treble clef and common time (4/4). It shows a continuous sequence of eighth notes starting at G and ending at G'. The notes are grouped into measures by vertical bar lines. The first measure starts at G and ends at A. The second measure starts at B and ends at C. The third measure starts at D and ends at E. The fourth measure starts at F and ends at G'. Measure divisions are indicated by vertical tick marks. Measures are separated by horizontal bar lines.

g1-g2

A musical staff in treble clef and common time (4/4). It shows a continuous sequence of eighth notes starting at G1 and ending at G2. The notes are grouped into measures by vertical bar lines. The first measure starts at G1 and ends at A. The second measure starts at B and ends at C. The third measure starts at D and ends at E. The fourth measure starts at F and ends at G2. Measure divisions are indicated by vertical tick marks. Measures are separated by horizontal bar lines.

c1-c2

A musical staff in treble clef and common time (4/4). It shows a continuous sequence of eighth notes starting at C1 and ending at C2. The notes are grouped into measures by vertical bar lines. The first measure starts at C1 and ends at D. The second measure starts at E and ends at F. The third measure starts at G and ends at A. The fourth measure starts at B and ends at C2. Measure divisions are indicated by vertical tick marks. Measures are separated by horizontal bar lines.

c2-c3

A musical staff in treble clef and common time (4/4). It shows a continuous sequence of eighth notes starting at C2 and ending at C3. The notes are grouped into measures by vertical bar lines. The first measure starts at C2 and ends at D. The second measure starts at E and ends at F. The third measure starts at G and ends at A. The fourth measure starts at B and ends at C3. Measure divisions are indicated by vertical tick marks. Measures are separated by horizontal bar lines.

Chromatic Scale

g-g²

g²-g

add for full range

f#-b

c1-c3

c3-c1

b-gb

add for full range

add for full range

f#-c#1

d1-d3

d3-d1

db1-gb

add for full range

The Major Scale

All scales (other than the chromatic) are patterns of whole and half steps. If you start playing on any note, play each note name in order and apply this pattern, you will have the "sound" of that type of scale.

Basic note names in order:

1-2-3-4-5-6-7-8 (1)

A-B-C-D-E-F-G-A

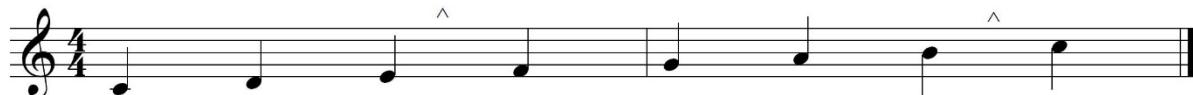
B-C-D-E-F-G-A-B

C-D-E-F-G-A-B-C

Etc.

Major scales have half-steps (^) between 3 and 4, and between 7 and 8; the rest are whole steps.

1-2-3^4-5-6-7^8



[C Major has no flats or sharps]



[G Major has 1 #- F#]



[F Major has 1 b- Bb]

Etc.

If you are new to music theory, discuss how this works with your teacher!

Practice the major scales through your playable range. This booklet has three options: 1 octave, 1 octave plus a 5th, and 2 octaves. Use a metronome!

Major Scales- one 8ve no key signature

F#

B

E

A

D

G

C

F

Bb

Eb

Ab

Db

Gb

The image shows twelve musical staves, each representing a major scale. The staves are arranged vertically, corresponding to the following key signatures:

- F# (one sharp)
- B (two sharps)
- E (three sharps)
- A (four sharps)
- D (two sharps)
- G (one sharp)
- C (no sharps or flats)
- F (one flat)
- Bb (two flats)
- Eb (three flats)
- Ab (four flats)
- Db (two flats)
- Gb (one flat)

Each staff is in treble clef and 4/4 time. The notes are connected by vertical stems and horizontal bar lines, with a final note and a repeat sign at the end of each staff.

Major Scales- 8ve + 5th

F#

B

E

A

D

G

C

F

Bb

Eb

Ab

Db

Gb

The image shows twelve musical staves, each representing a different major scale. The scales are: F# major, B major, E major, A major, D major, G major, C major, F major, B-flat major, E-flat major, A-flat major, D-flat major, and G-flat major. Each staff is in 4/4 time and uses a treble clef. The notes are black, and the scales are played from the first note to the eighth note plus the fifth note (the twelfth note). The staves are arranged vertically, corresponding to the key signatures listed on the left.

Major Scales- two 8ve

Xmaj7 - X

The sheet music consists of 12 staves, each representing a different major scale. The scales are arranged vertically from top to bottom: F#, B, E, A, D, G, C, F, Bb, Eb, Ab, Db, and Gb. Each staff is in common time (indicated by '4'). The notes are primarily eighth notes, with some sixteenth-note patterns. The key signatures are as follows: F# (4 sharps), B (2 sharps), E (1 sharp), A (2 sharps), D (1 sharp), G (no sharps or flats), C (no sharps or flats), F (1 flat), Bb (2 flats), Eb (3 flats), Ab (4 flats), Db (5 flats), and Gb (6 flats). The music ends with a final chord, Xmaj7 - X.

The minor scales

All scales (other than the chromatic) are patterns of whole and half steps. If you start playing on any note, play each note name in order and apply this pattern, you will have the "sound" of that type of scale.

Basic note names in order:

1-2-3-4-5-6-7-8 (1)

A-B-C-D-E-F-G-A

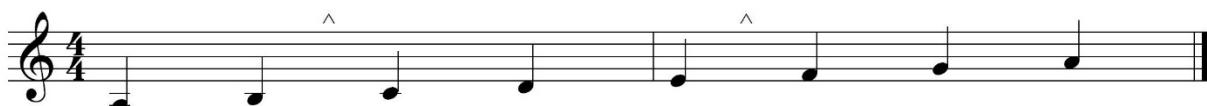
B-C-D-E-F-G-A-B

C-D-E-F-G-A-B-C

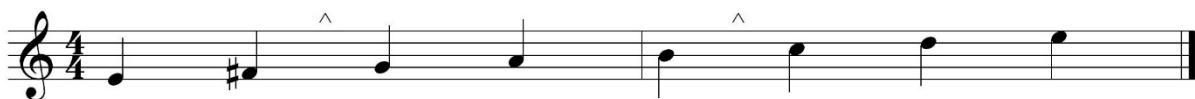
Etc.

Natural minor scales have half-steps (^) between 2 and 3, and between 5 and 6; the rest are whole steps.

1-2^3-4-5^6-7-8



[a minor has no flats or sharps]



[e minor has 1 #- F#]



[d minor has 1 b- Bb]

There are two other forms of the minor scale: Harmonic minor, and Melodic minor. For these two forms we make an adjustment from the Natural minor.

For **Harmonic minor**, we start with the Natural minor and we raise the 7th step a half-step, by adding either a sharp sign or a natural sign (if the note was originally a flat note). This creates a half-step (^) “leading tone” into tonic. It also creates an augmented 2nd (*) between step 6 and step 7, which gives the harmonic minor scale its distinctive sound. The harmonic minor scale is important in jazz and should be practiced starting on the tonic and the fifth.

[a natural minor]

[a harmonic minor]

For **Melodic minor**, we start with the Natural minor and we raise the 6th AND 7th step a half-step, by adding either a sharp sign or a natural sign (if the note was originally a flat note) on the upward portion of the scale. We ONLY do this when the scale is going UP. When the scale is going DOWN we go back to Natural minor. The **jazz melodic minor** raises the 6th and 7th steps a half-step going up AND down.

[a melodic minor]

[jazz melodic minor]

Practice the minor scales through your playable range. Use a metronome!

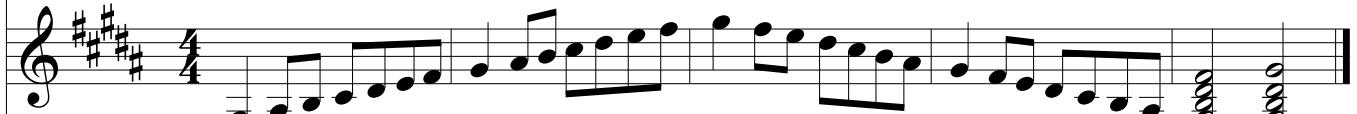
natural minor scales

Xm7 - Xm

d#



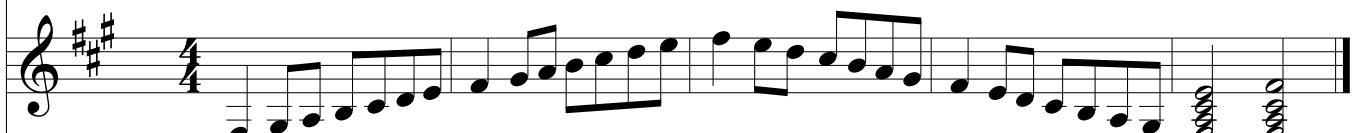
g#



c#



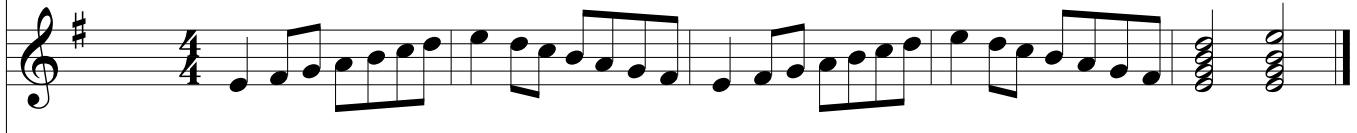
f#



b



e



a



d



g



c



f



bb



eb



harmonic minor scales

The image displays 12 musical staves, each representing a different harmonic minor scale. The staves are arranged vertically, with their corresponding key signatures listed to the left of each staff. The key signatures range from D major (d) to E major (eb). Each staff is in 4/4 time and features a unique sequence of notes and sharps, illustrating the characteristic mode of each scale.

- d# (D major)
- g# (G major)
- c# (C major)
- f# (F major)
- b (B major)
- e (E major)
- a (A major)
- d (D major)
- g (G major)
- c (C major)
- f (F major)
- bb (B-flat major)
- eb (E-flat major)

harmonic minor scales- starting on 5th

d#

g#

c#

f#

b

e

a

d

g

c

f

bb

eb

The image displays twelve staves of musical notation, each representing a harmonic minor scale starting on the fifth degree of a specific key signature. The staves are arranged vertically, corresponding to the following key signatures from top to bottom: d major (4 sharps), g major (3 sharps), c major (2 sharps), f major (1 sharp), B-flat major (no sharps or flats), E major (no sharps or flats), A major (no sharps or flats), D major (1 flat), G major (2 flats), C major (3 flats), F major (4 flats), B-flat major (5 flats), and E-flat major (6 flats). Each staff is in 4/4 time and uses a treble clef. The notation consists of eighth and sixteenth note patterns, with some notes having stems pointing up and others down, and some having small dots indicating they are sustained.

melodic minor scales

The image displays 15 musical staves, each representing a different melodic minor scale. The staves are arranged vertically, corresponding to the following key signatures from top to bottom:

- d# (D major)
- g# (G major)
- c# (C major)
- f# (F major)
- b (B major)
- e (E major)
- a (A major)
- d (D minor)
- g (G minor)
- c (C minor)
- f (F minor)
- bb (B-flat minor)
- eb (E-flat minor)

Each staff consists of a treble clef, a 4/4 time signature, and five horizontal lines. The music is written using black stems and heads. In the first four staves (d#, g#, c#, f#), the notes are mostly sharp. In the remaining staves (b, e, a, d, g, c, f, bb, eb), the notes are mostly flat or natural, with some sharps appearing in the higher register.

Jazz Melodic Minor scales

The image displays 12 musical staves, each representing a different key signature for a Jazz Melodic Minor scale. The staves are arranged vertically from top to bottom in the following order: d#, g#, c#, f#, b, e, a, d, g, c, f, bb, eb. Each staff is in 4/4 time and features a melodic line consisting of eighth and sixteenth note patterns.

- d#
- g#
- c#
- f#
- b
- e
- a
- d
- g
- c
- f
- bb
- eb

Arpeggios

Arpeggios are outlines of the "chords", usually of triads (chords built in 3rds).

For example, in C Major we have the following steps of the scale:

1-2-3-4-5-6-7-8

A musical staff in G clef and common time. It contains eight notes: C, E, G, C, E, G, C, C. Above the staff, the numbers 1, 3, 5, and 8 are placed above the first, third, fifth, and eighth notes respectively.

If I only play 1-3-5-8 we have the C Major Triad (**C-D-E-F-G-A-B-C**)

If we take 1-3-5 and stack them, we have a C Major chord.

G	5
E	3
C	1

A musical staff in G clef and common time. It contains eight notes: C, E, G, C, E, G, C, C. The notes are stacked vertically, forming a C major chord.

We can start with any of these three notes in the bottom of the chord:

G	5	C	1	E	3
E	3	G	5	C	1
C	1 (root position)	E	3 (first inversion)	G	5 (second inversion)

A musical staff in G clef and common time. It contains eight notes: C, E, G, C, E, G, C, C. The notes are stacked vertically, forming a C major chord.

As melodic instruments, trumpet players can't play the chord (since we can only play one note at a time), but we can outline, or arpeggiate the chord.

A musical staff in G clef and common time. It contains eight notes: C, E, G, C, E, G, C, C. The notes are played sequentially: C, E, G, C, E, G, C, C.

C-E-G-C-G-E-C or 1-3-5-1-5-3-1 (root position)



E-G-C-E-C-G or 3-5-1-3-1-5-3 (first inversion)



G-C-E-G-E-C or 5-1-3-5-3-1-5 (second inversion)

We can continue to stack 3rds for extended chords- 7th, 9th, 11th, 13th, etc.

I have included major and minor arpeggios in their root position- see Arban or other sources for other inversions. I've also additional arpeggios of interest. Discuss these with your teacher.

Use a metronome!

Major Arpeggios

F#

B

E

A

D

G

C

F

Bb

Eb

Ab

Db

Gb

The image displays 13 musical staves, each representing a different major key. The keys are listed vertically on the left side of each staff: F#, B, E, A, D, G, C, F, Bb, Eb, Ab, Db, and Gb. Each staff is in 3/4 time. The music consists of a single line of notes. Each staff begins with a quarter note followed by an eighth note, then continues with a sequence of eighth notes forming the arpeggio pattern for that specific key. The notes are black on white staff lines.

Dominant Seventh Arpeggios

X7

F#7 (B)

B7 (E)

E7 (A)

A7 (D)

D7 (G)

G7 (C)

C7 (F)

F7 (Bb)

Bb7 (Eb)

Eb7 (Ab)

Ab7 (Db)

Db7 (Gb)

Gb7 (Cb)

Major Seventh Arpeggios

X Maj7

The sheet music displays 12 staves, each representing a different key. The keys are listed on the left side of each staff: F# (one sharp), B (two sharps), E (three sharps), A (two sharps), D (one sharp), G (no sharps or flats), C (one sharp), F (one flat), Bb (two flats), Eb (three flats), Ab (four flats), Db (five flats), and Gb (six flats). Each staff is in common time (indicated by '4'). The music consists of a single melodic line that forms a major seventh chord arpeggio. The notes are primarily eighth notes, with some sixteenth-note patterns. The arpeggios start on the root note of each key and move through the chord members in a specific sequence. The music concludes with a final note on each staff followed by a vertical brace and a repeat sign.

minor arpeggios

d#

g#

c#

f#

b

e

a

d

g

c

f

bb

eb

The image displays twelve staves of musical notation, each representing a different minor key. The keys are: d major (one sharp), g major (two sharps), c major (no sharps or flats), f major (one sharp), b major (two sharps), e major (one sharp), a major (no sharps or flats), d major (one sharp), g major (one flat), c major (two flats), f major (three flats), b major (four flats), and e major (five flats). Each staff begins with a quarter note followed by a series of eighth notes forming an arpeggio pattern. The notation uses a treble clef and a common time signature (indicated by a '3'). The music consists of two measures per staff, with the first measure containing the arpeggio and the second measure ending with a half note.

Minor Seventh Arpeggios (Xmin7, Xm7, X-7)

Xm7

The score consists of 12 staves, each representing a different chord in a minor key. The chords are:

- F#m7
- Bm7
- Em7
- Am7
- Dm7
- Gm7
- Cm7
- Fm7
- Bbm7
- Ebm7
- Abm7
- Dbm7
- Gbm7

Each staff begins with a treble clef and a '4' indicating common time. The arpeggios are composed of eighth-note patterns. The final note of each arpeggio is followed by 'Xm7'.

Harmonic Minor Extended Arpeggios

Xm^(maj7)

V^{7(b9)}

V^(b9) VIIdim7

D#

G#

C#

F#

B

E

A

D

G

C

F

Bb

Eb

Melodic Minor Extended Arpeggios

Xm^(maj13)

The sheet music displays 12 staves, each representing a different key signature. The keys are listed on the left: D#, G#, C#, F#, B, E, A, D, G, C, F, Bb, and Eb. Each staff is in common time (indicated by '4'). The music consists of a series of eighth-note arpeggios. The notes are primarily black, with some white notes appearing as grace notes or specific scale degrees. The right side of the page features a vertical column of 13 dots, representing the 13th note of the melodic minor scale. The first 12 dots correspond to the 12 keys shown on the staves, while the 13th dot is positioned above the 12th dot.

Diminished Seventh Arpeggios

Xo7

F#o7

Bo7

Eo7

Ao7

Do7

Go7

Co7

Fo7

Bbo7

D#o7

G#o7

C#o7

Gbo7

Half-Diminished Seventh Arpeggios (minor 7^(b5), X^{ø7} or X^ø)

X^ø

The score contains 12 staves, each representing a different key. From top to bottom, the keys are:

- F#ø
- Bø
- Eø
- Aø
- Dø
- Gø
- Cø
- Fø
- Bbø
- D#ø
- G#ø
- C#ø
- Gbø

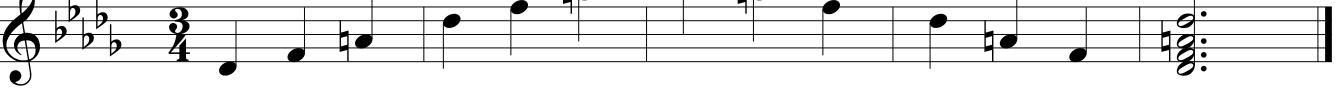
Each staff is in 4/4 time and uses a treble clef. The music consists of eighth-note patterns forming arpeggios. The right side of each staff shows a common ending.

Augmented Arpeggios, X+

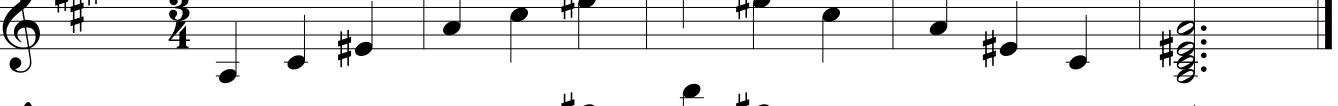
C 

E 

Ab 

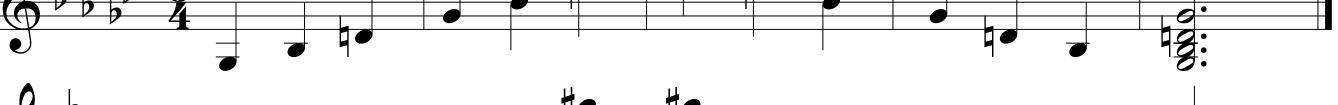
D_b* 

F* 

A* 

D** 

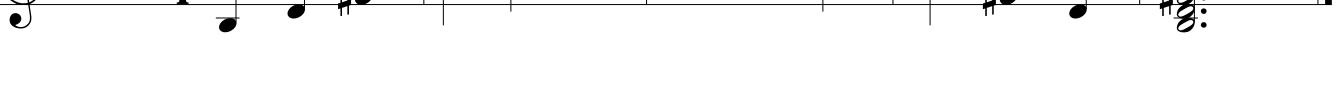
F#** 

G_b** 

B_b** 

E_b*** 

G*** 

B*** 

Chord Extensions- XMaj13(#11) or X/X

X/X

The musical score consists of 12 staves, each representing a different key signature and time signature combination. The staves are labeled on the left side:

- G#/F# (Key of G major, 4 sharps)
- C#/B (Key of C major, 4 sharps)
- F#/E (Key of F major, 1 sharp)
- B/A (Key of B major, 2 sharps)
- E/D (Key of E major, 1 sharp)
- A/G (Key of A major, no sharps or flats)
- D/C (Key of D major, 1 sharp)
- G/F (Key of G major, 1 sharp)
- C/Bb (Key of C major, 1 flat)
- F/Eb (Key of F major, 1 flat)
- Bb/Ab (Key of B-flat major, 2 flats)
- Eb/Db (Key of E-flat major, 3 flats)
- Ab/Gb (Key of A-flat major, 3 flats)

Each staff begins with a treble clef, followed by a key signature, a '4' indicating common time, and a series of quarter notes. The music concludes with a double bar line and repeat dots at the end of each staff.

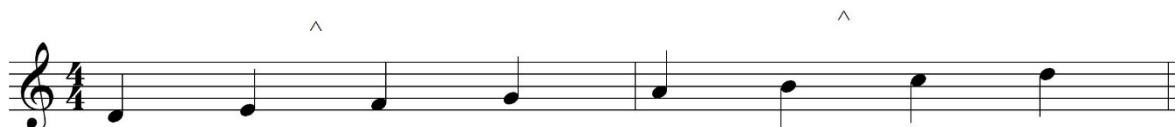
The Modes.

The Medieval church modes were patterns of whole and $\frac{1}{2}$ steps used in sacred music and chant. They took their name from the ancient Greek modes, though incorrectly.

If you sit at a piano and play all white keys starting on different notes, you generate seven different patterns of whole and half-steps, the church modes. \wedge is a $\frac{1}{2}$ step



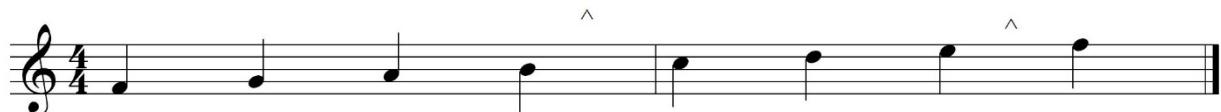
Ionian mode major sounding (our Major scale)



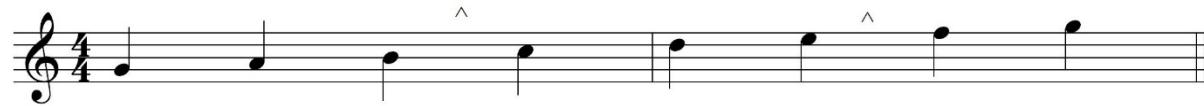
Dorian mode minor sounding



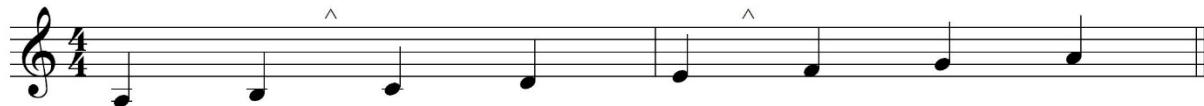
Phrygian mode minor sounding



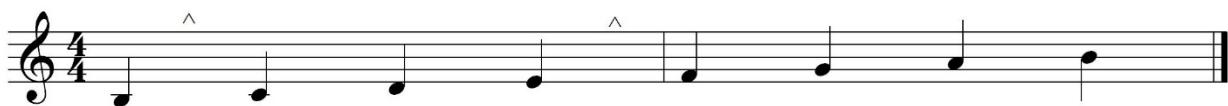
Lydian mode major sounding



Mixolydian mode major sounding



Aeolian mode minor sounding (our Natural minor scale)



Locrian mode diminished sounding

Eventually, composers gravitated toward the Ionian mode (our major scale) and the Aeolian mode (or natural minor scale), and our western "tonal" music had its birth.

Why learn the modes today? The modes can be used as substitute scales in jazz improvisation. Learning the modes adds more tools to your improv toolbox.

Also, playing d Dorian is just playing a C Major scale from d-d; being able to play any major scale starting on any note of the scale (the modes) makes us better performers and sight-readers!

See resources such as Arban for these types of exercises.

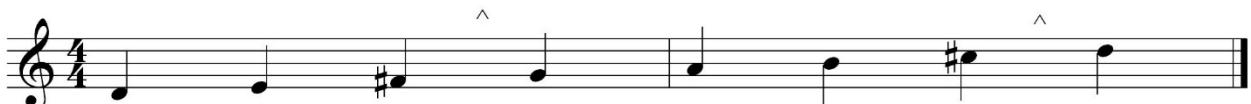
The Dorian Mode

The pattern of whole and half-steps for the Dorian mode is as follows:
(^ is a $\frac{1}{2}$ step). The Dorian mode is a “minor sounding” mode.



Half-steps between $2^\wedge 3$ and $6^\wedge 7$.

Compare this pattern to that of D Major:



[half-steps between $3^\wedge 4$ and $7^\wedge 8$]

There are several ways to find the notes of Dorian mode:

1. Play a diatonic scale (all the note names in order) with half-steps between $2^\wedge 3$, and $6^\wedge 7$.
For example, for c Dorian, play all the note names from c to c, adding accidentals to make $\frac{1}{2}$ steps in the correct spots for Dorian mode.



2. You can take the tonic, then from the key signature of that tonic's major scale you add 2 flats. For example, if finding key sign for f Dorian, go from F major (1 flat) and add 2 flats to key sign; f Dorian has 3 flats in the key sign. For e Dorian, go from E major (4 sharps) and add 2 flats to key sign; e Dorian is left with 2 sharps in the key sign.
3. You can just raise or lower steps of the Major or natural minor scale. To find the Dorian mode from the Major scale, LOWER the 3rd and 7th steps of the scale $\frac{1}{2}$ step. To find the Dorian mode from the natural minor scale, raise the 6th step of the scale $\frac{1}{2}$ step.
4. You can play the scale with the key signature of the Major scale a Major 2nd (whole step) below. For example, d Dorian has the key signature of C major.

Use a metronome! A steady pulse is crucial for pattern learning!

Dorian Mode from natural minor

Xm7 - Xm

The sheet music consists of 12 staves, each representing a different key signature. The keys are listed vertically on the left side of each staff: d# (D major), g# (G major), c# (C major), f# (F major), b (B major), e (E major), a (A major), d (D major), g (G major), c (C major), f (F major), bb (B-flat major), and eb (E-flat major). Each staff is in common time (indicated by '4'). The music is a single melodic line, likely for a solo instrument like a guitar or flute. The notes are primarily eighth notes, with some sixteenth-note patterns. The melody starts with a descending eighth-note scale (D-C-B-A-G-F-E-D) followed by a series of eighth-note chords and scales. The notation uses standard musical notation with stems indicating direction. The first staff (d#) has a treble clef, while the remaining staves use a standard C-clef.

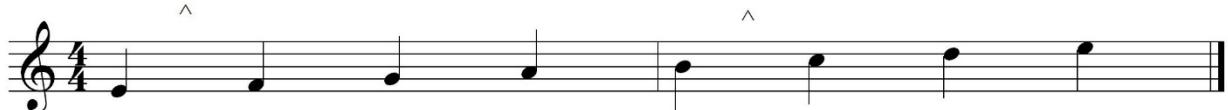
Dorian Mode- Advanced

Xm7

The sheet music consists of 12 staves, each representing a different guitar tuning. The tunings are: g# (G major), c# (C major), f# (F major), b (B major), e (E major), a (A major), d (D major), g (G major), c (C major), f (F major), bb (B minor), eb (E minor), and ab (A minor). Each staff is in 4/4 time and shows a single melodic line. The notation includes eighth and sixteenth notes, with some eighth-note pairs connected by a vertical bar. The music concludes with a common chord (Xm7) at the end of each staff.

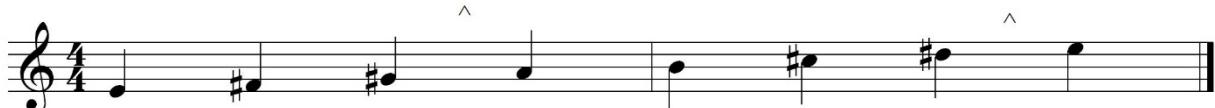
The Phrygian Mode

The pattern of whole and half-steps for the Phrygian mode is as follows:
(^ is a $\frac{1}{2}$ step). The Phrygian mode is a “minor sounding” mode.



[half-steps between 1^2 and 5^6]

Compare this pattern to that of E Major:



[half-steps between 3^4 and 7^8]

There are several ways to find the notes of Phrygian mode:

1. Play a diatonic scale (play all the note names in order) and put half-steps between 1^2, and 5^6.
For example, for c Phrygian, play all the note names from c to c, adding accidentals to make $\frac{1}{2}$ steps in the correct spots for Phrygian mode.



2. You can take the tonic, then from the key signature of that tonic's major scale you add 4 flats. For example, if finding key sign for F Phrygian, go from F major (1 flat) and add 4 flats to key sign; F Phrygian has 5 flats in the key sign. For B Phrygian, go from B major (5 sharps) and add 4 flats to key sign; B Phrygian is left with 1 sharp in the key sign.
3. You can just raise or lower steps of the Major or natural minor scale. To find the Phrygian mode from the Major scale, LOWER the 2nd, 3rd, 6th, and 7th steps of the scale $\frac{1}{2}$ step. To find the Phrygian mode from the natural minor scale, LOWER the 2nd step of the scale $\frac{1}{2}$ step.
4. You can play the scale with the key signature of the Major scale a Major 3rd below. For example, E Phrygian has the key signature of C major.

Use a metronome! A steady pulse is crucial for pattern learning!

The Phrygian mode from natural minor

Xm7 - Xm

The musical score consists of 12 staves of music, each with a different key signature:

- d# (one sharp)
- g# (two sharps)
- c# (three sharps)
- f# (one sharp)
- b (no sharps or flats)
- e (one sharp)
- a (no sharps or flats)
- d (one flat)
- g (two flats)
- c (three flats)
- f (four flats)
- bb (five flats)
- eb (six flats)

The music is in common time (indicated by '4') and features a repeating pattern of eighth and sixteenth notes. The score ends with a double bar line and repeat dots.

Phrygian Mode- Advanced

Xm7

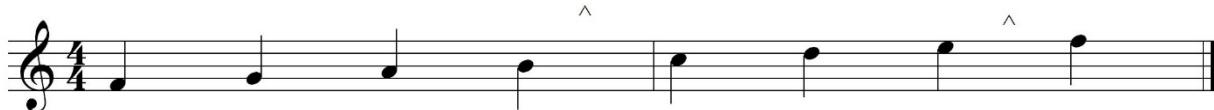
The musical score consists of 15 staves of music, each representing a different mode or key signature. The staves are labeled on the left side:

- a# (one sharp)
- d# (two sharps)
- g# (three sharps)
- c# (four sharps)
- f# (one sharp)
- b (no sharps or flats)
- e (no sharps or flats)
- a (one flat)
- d (two flats)
- g (three flats)
- c (four flats)
- f (five flats)
- bb (six flats)

Each staff is in 4/4 time and uses a treble clef. The music consists of eighth-note patterns. The score concludes with a final chord symbol Xm7.

The Lydian Mode

The pattern of whole and half-steps for the Lydian mode is as follows:
(^ is a $\frac{1}{2}$ step). The Lydian mode is a “major sounding” mode.



[half- steps between 4^5 and 7^8]

Compare this pattern to that of F Major:

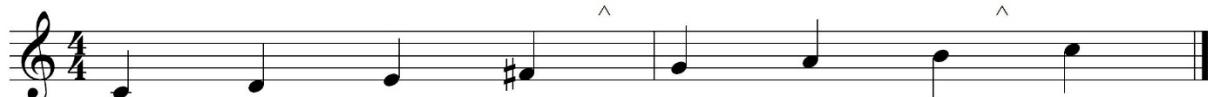


[half-steps between 3^4 and 7^8]

There are several ways to find the notes of Lydian mode:

1. Play a diatonic scale (play all the note names in order) and put half-steps between 4^5, and 7^8.

For example, for C Lydian, play all the note names from C to C adding accidentals to make $\frac{1}{2}$ steps in the correct spots for Lydian mode.



2. You can take the tonic, then from the key signature of that tonic's major scale you add 1 sharp. For example, if finding key sign for F Lydian, go from F major (1 flat) and add 1 sharp to key sign; F Lydian has 0 flats/sharps in the key sign. For E Lydian, go from E major (4 sharps) and add 1 sharp to key sign; E Lydian has 5 sharps in the key sign.
3. You can just raise or lower steps of the Major scale. For Lydian mode, take the Major scale and RAISE the 4th step of the scale $\frac{1}{2}$ step.
4. You can play the scale with the key signature of the Major scale a Perfect 4th below. For example, F Lydian has the key signature of C major.

Use a metronome! A steady pulse is crucial for pattern learning!

Lydian Mode from Major key signature- add 1 sharp

Xmaj7 (#11)

Sheet music for 12 guitar tunings, each consisting of a treble clef staff and a bass clef staff. The tunings are:

- F# (Treble: A, Bass: D)
- B (Treble: E, Bass: G)
- E (Treble: B, Bass: E)
- A (Treble: C, Bass: A)
- D (Treble: F, Bass: D)
- G (Treble: G, Bass: C)
- C (Treble: C, Bass: G)
- F (Treble: D, Bass: A)
- Bb (Treble: E, Bass: B)
- Eb (Treble: A, Bass: E)
- Ab (Treble: B, Bass: D)
- Db (Treble: C, Bass: F)
- Gb (Treble: D, Bass: G)

The music consists of a series of eighth-note patterns. The first measure starts with a quarter note followed by a sixteenth-note pattern. The second measure starts with a sixteenth note followed by a eighth-note pattern. The third measure starts with a eighth note followed by a sixteenth-note pattern. The fourth measure starts with a sixteenth note followed by a eighth-note pattern. The fifth measure starts with a eighth note followed by a sixteenth-note pattern. The sixth measure starts with a sixteenth note followed by a eighth-note pattern. The seventh measure starts with a eighth note followed by a sixteenth-note pattern. The eighth measure starts with a sixteenth note followed by a eighth-note pattern. The ninth measure starts with a eighth note followed by a sixteenth-note pattern. The tenth measure starts with a sixteenth note followed by a eighth-note pattern. The eleventh measure starts with a eighth note followed by a sixteenth-note pattern. The twelfth measure starts with a sixteenth note followed by a eighth-note pattern. The thirteenth measure starts with a eighth note followed by a sixteenth-note pattern. The fourteenth measure starts with a sixteenth note followed by a eighth-note pattern. The fifteenth measure starts with a eighth note followed by a sixteenth-note pattern. The sixteenth measure starts with a sixteenth note followed by a eighth-note pattern. The seventeenth measure starts with a eighth note followed by a sixteenth-note pattern. The eighteenth measure starts with a sixteenth note followed by a eighth-note pattern. The nineteenth measure starts with a eighth note followed by a sixteenth-note pattern. The twentieth measure starts with a sixteenth note followed by a eighth-note pattern. The twenty-first measure starts with a eighth note followed by a sixteenth-note pattern. The twenty-second measure starts with a sixteenth note followed by a eighth-note pattern. The twenty-third measure starts with a eighth note followed by a sixteenth-note pattern. The twenty-fourth measure starts with a sixteenth note followed by a eighth-note pattern. The twenty-fifth measure starts with a eighth note followed by a sixteenth-note pattern. The twenty-sixth measure starts with a sixteenth note followed by a eighth-note pattern. The twenty-seventh measure starts with a eighth note followed by a sixteenth-note pattern. The twenty-eighth measure starts with a sixteenth note followed by a eighth-note pattern. The twenty-ninth measure starts with a eighth note followed by a sixteenth-note pattern. The thirtieth measure starts with a sixteenth note followed by a eighth-note pattern. The thirty-first measure starts with a eighth note followed by a sixteenth-note pattern. The thirty-second measure starts with a sixteenth note followed by a eighth-note pattern. The thirty-third measure starts with a eighth note followed by a sixteenth-note pattern. The thirty-fourth measure starts with a sixteenth note followed by a eighth-note pattern. The thirty-fifth measure starts with a eighth note followed by a sixteenth-note pattern. The thirty-sixth measure starts with a sixteenth note followed by a eighth-note pattern. The thirty-seventh measure starts with a eighth note followed by a sixteenth-note pattern. The thirty-eighth measure starts with a sixteenth note followed by a eighth-note pattern. The thirty-ninth measure starts with a eighth note followed by a sixteenth-note pattern. The forty-measure ends with a eighth note followed by a sixteenth-note pattern.

Lydian Mode- Advanced

Xmaj7 (#11)

B

E

A

D

G

C

F

Bb

Eb

Ab

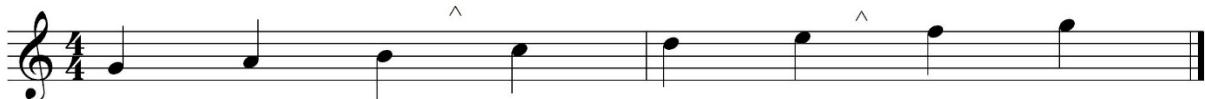
Db

Gb

Cb

The Mixolydian Mode

The pattern of whole and half-steps for the Mixolydian mode is as follows:
(^ is a $\frac{1}{2}$ step). Mixolydian is a “major sounding” mode.



[half-steps between 3^{^4} and 6^{^7}]

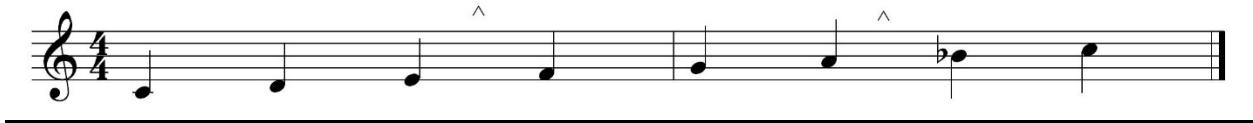
Compare this pattern to that of G Major:



[half-steps between 3^{^4} and 7^{^8}]

There are several ways to find the notes of Mixolydian mode:

1. Play a diatonic scale (play all the note names in order) and put half-steps between 3^{^4}, and 6^{^7}.
For example, for C Mixolydian, play all the note names from C to C adding accidentals to make $\frac{1}{2}$ steps in the correct spots for Mixolydian mode.



2. You can take the tonic, then from the key signature of that tonic's major scale you add 1 flat. For example, if finding key sign for F Mixolydian, go from F major (1 flat) and add 1 flat to key sign; F Mixolydian has 2 flats in the key sign. For E Mixolydian, go from E major (4 sharps) and add 1 flat to key sign; E Mixolydian has 3 sharps in the key sign.
3. You can just raise or lower steps of the Major scale. For Mixolydian mode, take the Major scale and LOWER the 7th step of the scale $\frac{1}{2}$ step.
4. You can play the scale with the key signature of the Major scale a Perfect 5th below. For example, G Mixolydian has the key signature of C major.

Use a metronome! A steady pulse is crucial for pattern learning!

Mixolydian Mode from Major key sign- add 1 flat

X7 - X

The sheet music displays 12 staves, each representing a different key signature. The staves are labeled as follows:

- F# (Major key with 3 sharps)
- B (Major key with 2 sharps)
- E (Major key with 1 sharp)
- A (Major key with no sharps)
- D (Major key with 1 sharp)
- G (Major key with 2 sharps)
- C (Major key with 3 sharps)
- F (Major key with 4 sharps)
- Bb (Major key with 2 flats)
- Eb (Major key with 1 flat)
- Ab (Major key with no sharps or flats)
- Db (Major key with 1 flat)
- Gb (Major key with 2 flats)

Each staff features a 4/4 time signature and a melodic line composed of eighth and sixteenth notes. The music is identical across all staves, illustrating how the Mixolydian mode can be played in various keys by adjusting the key signature.

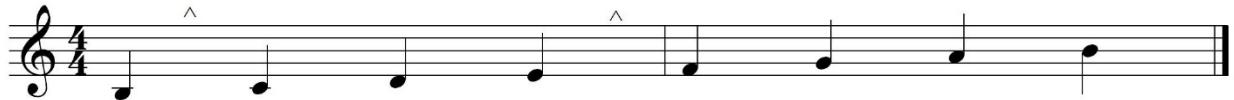
Mixolydian Mode- Advanced

X7 - X

The musical score consists of 12 staves, each representing a different key signature. The keys are listed vertically on the left side of the staves: C#, F#, B, E, A, D, G, C, F, Bb, Eb, Ab, and Db. Each staff begins with a clef (G or F), a key signature, and a 4/4 time signature. The music is composed of eighth and sixteenth notes, primarily using the Mixolydian mode. The score ends with a final cadence on the dominant chord (X7) followed by a half note on the tonic (X).

The Locrian Mode

The pattern of whole and half-steps for the Locrian mode is as follows:
(^ is a $\frac{1}{2}$ step). The Locrian mode is a “diminished sounding” mode.



[half- steps between 1^2 and 4^5]

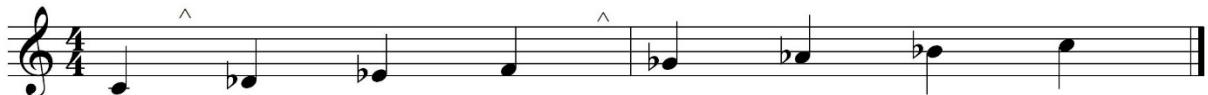
Compare this pattern to that of B Major:



[half-steps between 3^4 and 7^8]

There are several ways to find the notes of Locrian mode:

1. Play a diatonic scale (play all the note names in order) and put half-steps between 1^2 , and 4^5 .
For example, for C Locrian, play all the note names from C to C adding accidentals to make $\frac{1}{2}$ steps in the correct spots for Locrian mode.



2. You can take the tonic, then from the key signature of that tonic's major scale you add 5 flats. For example, if finding key sign for F Locrian, go from F major (1 flat) and add 5 flats to key sign; F Locrian has 6 flats in the key sign. For F# Locrian, go from F# major (6 sharps) and add 5 flats to key sign; F# Locrian has 1 sharp in the key sign.
3. You can just raise or lower steps of the Major or natural minor scale. To find the Locrian mode from the Major scale, LOWER the 2nd, 3rd, 5th, 6th, and 7th steps of the scale $\frac{1}{2}$ step. To find the Locrian mode from the natural minor scale, LOWER the 2nd and 5th steps of the $\frac{1}{2}$ step.
4. You can play the scale with the key signature of the Major scale a minor 2nd above. For example, b Locrian has the key signature of C major.

Use a metronome! A steady pulse is crucial for pattern learning!

The Locrian mode from natural minor

Xm7b5

d#

g#

c#

f#

b

e

a

d

g

c

f

bb

eb

Locrian Mode- Advanced

Xm7b5

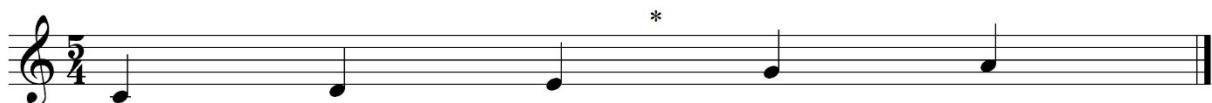
The musical score consists of 12 staves, each representing a different key signature. The staves are labeled on the left side with their corresponding key signatures: e#, a#, d#, g#, c#, f#, b, e, a, d, g, c, f. Each staff is in 4/4 time. The music is composed of eighth-note patterns, primarily consisting of eighth-note pairs and sixteenth-note groups. A final chord symbol, Xm7b5, is placed at the end of each staff.

The Pentatonic Scales

Pentatonic scales use 5 notes of the major or minor scale, hence "penta-" for 5.

The **Major Pentatonic** uses these steps from the Major scale. (* $1 \frac{1}{2}$ step)

1-2-3-*5-6



C Major Pentatonic

The **minor Pentatonic** uses these steps from the Natural minor scale: (* $1 \frac{1}{2}$ step)

1-*3-4-5-*7



A minor Pentatonic

Note that the Minor Pentatonic uses the same 5 notes as its "Relative" Major Pentatonic.
"Relatives" are keys that have the same key signature.

C Major/a minor both have no flats or sharps.

F Major/d minor both have 1 flat.

G Major/e minor both have 1 sharp, etc.

Practice the pentatonic scales through your playable range. Use a metronome!

Pentatonic Scales- Major (1-2-3*5-6 of Major)

F#



B



E



A



D



G



C



F



Bb



Eb



Ab



Db



Gb



Pentatonic Scales- minor (1*3-4-5*7 of natural minor)

d#



g#



c#



f#



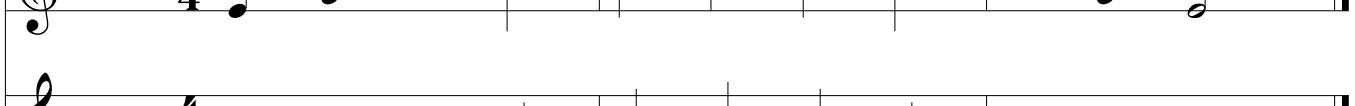
b



e



a



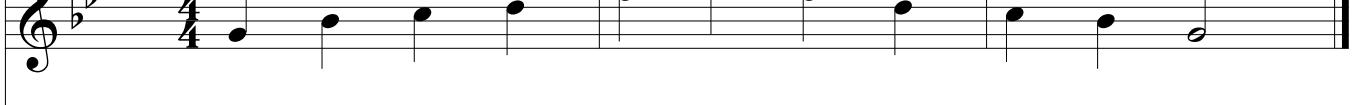
d



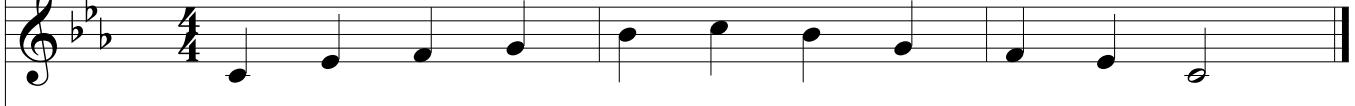
g



c



f



bb



eb



The Blues Scale

The blues scale is essentially a minor pentatonic scale with an added flat fifth. Starting with a Major scale, the blues scale formula is 1, b3, 4, b5, 5, b7. From a minor scale, the blues scale formula is 1, 3, 4, b5, 5, 7. The easiest way to remember this scale is to think of it as the minor pentatonic and simply learn where the added "Blue" notes is added.

(X is the b5 or "Blue" note)

A musical staff in G major (one sharp) and common time (indicated by a '4'). The notes are: A (solid dot), B (solid dot), C (solid dot), D (solid dot), E (solid dot), F# (open circle), G (solid dot), A (solid dot), B (solid dot), C (solid dot). An 'X' is placed above the F# note.

A Blues (a minor pentatonic with added b5 Blue note)

A musical staff in C major (no sharps or flats) and common time (indicated by a '4'). The notes are: C (solid dot), D (solid dot), E (solid dot), F (solid dot), G (solid dot), A (solid dot), B (solid dot), C (solid dot), D (solid dot), E (solid dot). An 'X' is placed above the B note.

C Blues (c minor pentatonic with added b5 Blue note)

The standard Blues Progression is I-IV-V, so for Bb (concert) Blues, trumpeters on Bb trumpet need to know C-F-G Blues scales. For F (concert) Blues, trumpeters of B trumpet would need to know G-C-D Blues scales.

Practice the Blues scales through your playable range. Use a metronome!

Blues Scales- X7

F#

B

E

A

D

G

C

F

Bb

Eb

Ab

Db

Gb

The Whole Tone Scale

The Whole Tone Scale is made up exclusively from Whole steps. Because of this, there are only 2 distinct whole tone scales (scales with a unique collection of notes); all other whole tone scales are just various modes (start at a different place in the scale) of these two scales.

The two distinct Whole Tone scales are the C and Db Whole Tone scales: (- whole step)



C Whole Tone Scale



Db Whole Tone Scale

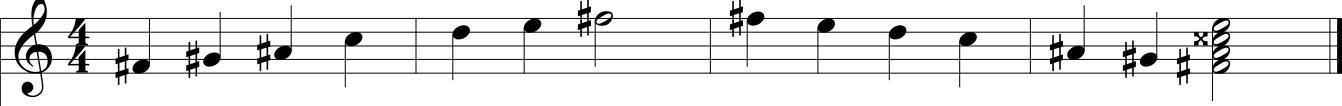
The chord derived from a Whole Tone Scale is V7#5, but the scale can be used over a V7 chord.

Practice the Whole Tone (focus on C and Db) scales through your playable range. Use a metronome!

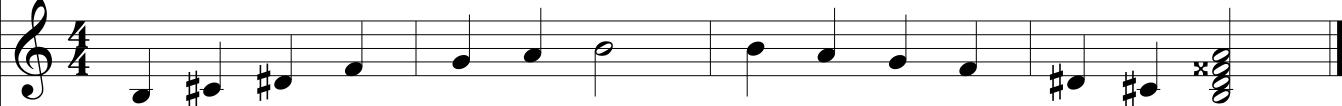
Whole Tone Scales

V7#5 (V7)

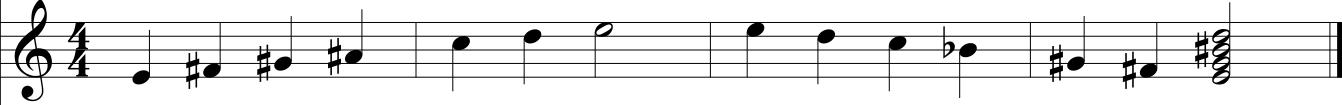
F#**



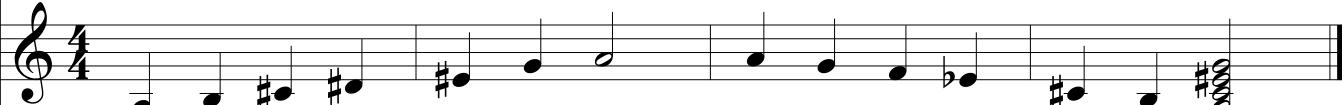
B**



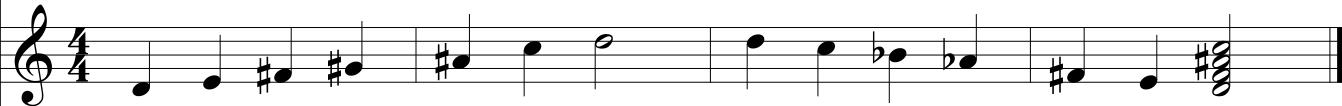
E*



A**



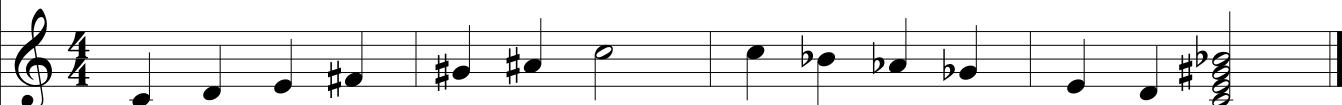
D*



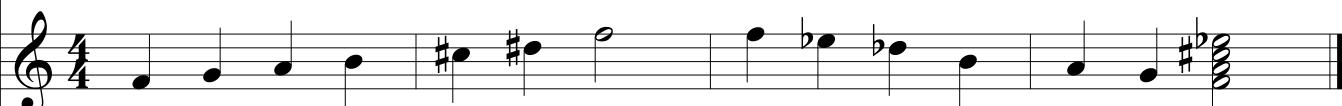
G**



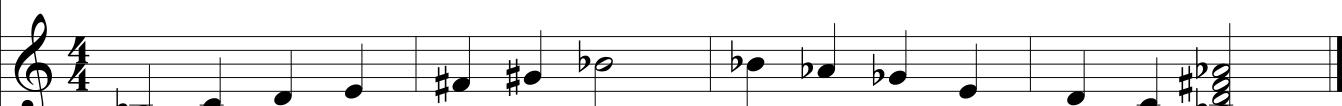
C



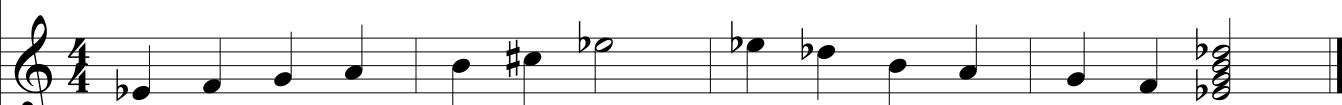
F**



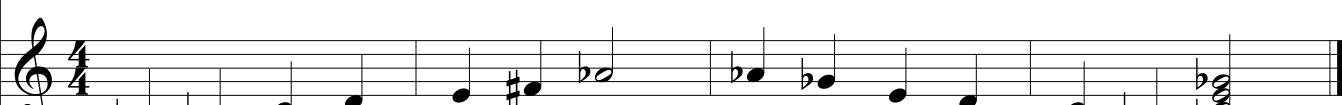
Bb*



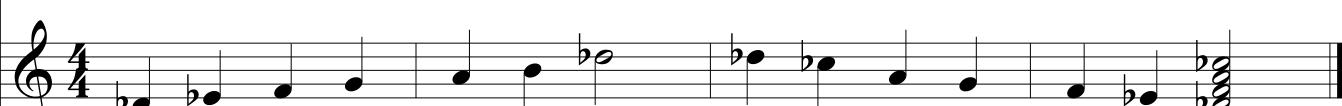
Eb**



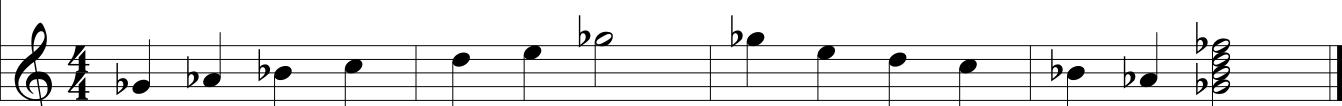
Ab*



Db



Gb*



The Diminished Scales

Diminished scales use eight notes (sometimes called the Octatonic Scale) of alternating whole and half-steps.

There are two modes of diminished scales- the whole-step/half-step diminished scale, and the half-step/whole-step diminished scale.

There are only three distinct sets of pitches that make up diminished scales, with each set containing the same set of eight pitches. Each set repeats at the interval of a minor third. For example, start the C whole-half diminished pattern on C, Eb, F# or A and you will generate the same set of pitches.

The three distinct sets of pitches for diminished scales begin on the following pitches:

C, C#, and D

The **whole-step/half-step diminished scale** uses the following pattern. (- 1 step, ^ ½ step, * 1 ½ step)

1-2^3-5^6-7^8

C whole-half diminished: **C-D^Eb-F^F#-G#^A-B**

C# whole-half diminished: **C#-D#^E-F#^G-A^B-B-C**

D whole-half diminished: **D-E^F-G^G#-A#^B-C#**

The **half-step/whole-step diminished scale** uses the following pattern. (- 1 step, ^ $\frac{1}{2}$ step, * $1\frac{1}{2}$ step)

1^2-3^4-5-6-7^8

A musical staff in G clef and 4/4 time. It shows a sequence of notes: C, C sharp, D, D sharp, E, F, F sharp, G, G sharp, A, A flat, B, B flat. This represents the pattern 1^2-3^4-5-6-7^8.

C half-whole diminished: C^C#-D#^E-F#^G-A^Bb

A musical staff in G clef and 4/4 time. It shows a sequence of notes: C, C sharp, D, D sharp, E, F, F sharp, G, G sharp, A, A flat, B, B flat. This represents the C half-whole diminished scale.

C# half-whole diminished: C#^D-E^F-G^Ab(G#)-Bb^B

A musical staff in G clef and 4/4 time. It shows a sequence of notes: C sharp, D, D sharp, E, F, F sharp, G, G sharp, A, A flat, B, B flat. This represents the C# half-whole diminished scale.

D half-whole diminished: D^Eb-F^Gb-Ab^A-B^C

Whole/Half Diminished Scales

X^{o7}

C

Eb

F#

A

C#*

E*

G*

Bb*

D**

F**

G#**

B**

The image displays twelve musical staves, each in G clef and 4/4 time, illustrating various whole/half diminished scales. The scales are:

- C: One flat (B-flat).
- Eb: Two flats (B-flat, E-flat).
- F# (F-sharp): One sharp (F-sharp).
- A: No sharps or flats.
- C#* (C-sharp): Two sharps (C-sharp, G-sharp).
- E*: One sharp (E-sharp).
- G*: One sharp (G-sharp).
- Bb*: Two flats (B-flat, D-flat).
- D**: Two sharps (D-sharp, F-sharp).
- F**: One sharp (F-sharp).
- G#**: Two sharps (G-sharp, B-sharp).
- B**: Three sharps (B-sharp, D-sharp, F-sharp).

The last staff is blank.

Half/Whole Diminished Scales

$X^{13(\#9)}$

D $X^{13(\#9)}$

F

Ab

B

Eb*

F#*

A*

C*

E**

G**

Bb**

C**

The Augmented Scales

Augmented scales use six notes with alternating minor thirds and half-steps. It generates augmented harmony.

The **augmented scale** uses the following pattern. (- 1 step, ^ $\frac{1}{2}$ step, * $1\frac{1}{2}$ step)

1*2^3*5^6



C augmented

One way to build the scale is to start with an augmented triad, then add a note $\frac{1}{2}$ step below each step of the triad.

C augmented: **C*D#^E*G^G#*B**

C augmented: C E G#

D# G B

Augmented Scales- X+7, XMaj7^(#5), X7^(#5B9)

X+7

F#

B

E

A

D

G

C

F

Bb

Eb

Ab

Db

Gb

The BeBop scales

Bebop scales add a note (typically a chromatic passing tone) to any common seven tone scale in order to make it an eight-tone scale. Having eight notes enables the primary chord tones to continuously fall on the strong beats (downbeats) of the rhythm when the scale is played sequentially. This is unlike common seven note scales in which the chord tones do not all naturally fall on the downbeats due to the odd number of notes. These bebop scales are frequently used in jazz improvisation. Jazz educator David Baker nicknamed these scales the "bebop scales" because they were used often by jazz artists from the Bebop Era.

Bebop scales consist of traditional scales with an added passing tone. Generally, any scale of seven notes may be modified by the addition of an additional note to accomplish the same effect allowing chord tones to naturally stay on the beat. The modifier "bebop" is reserved to indicate those scales most frequently used—and popularized—during the bebop era.

The BeBop Dominant is the most commonly used and recognized bebop scale.

- Whole step

^ Half-step

BeBop Dominant: 1-2-3^4-5-6^b7^7^8. For example,



The BeBop Dominant is essentially a Mixolodian scale with an added major seventh scale degree.

The BeBop Dorian scale is a mode of the BeBop Dominant- begin the BeBop Dominant on the 5th step of the scale.

BeBop Dorian: 1-2^b3^3^4-5-6^b7-8. For example,



Both the BeBop Major and BeBop Melodic Minor add a chromatic passing tone between the fifth and sixth scale degrees.

BeBop Major: 1-2-3^4-5^#5^6-7^8. For example,



BeBop Melodic Minor: 1-2^3-4-5^#5^6-7^8. For example,



The BeBop Harmonic Minor scale is derived from the harmonic minor scale and has a chromatic passing note added (an additional #7) between the 7th and 1st scale degrees.

BeBop Harmonic Minor: 1-2^3-4-5^6-7^#7^8. For example,



Practice the Bebop scales through your playable range. Use a metronome!

BeBop- BeBop Dominant Scales

F#

B

E

A

D

G

C

F

Bb

Eb

Ab

D_b

G_b

The image displays 13 musical staves, each representing a different key signature. The keys are F# major, B major, E major, A major, D major, G major, C major, F major, B-flat major, E-flat major, A-flat major, D-flat major, and G-flat major. Each staff is in 4/4 time and shows a single melodic line consisting of quarter notes and half notes. The staves are arranged vertically from top to bottom in the order listed above.

BeBop- BeBop Dorian Scales

d#

g#

c#

f#

b

e

a

d

g

c

f

bb

eb

BeBop- BeBop Major Scales

F#

B

E

A

D

G

C

F

Bb

Eb

Ab

D_b

G_b

The image displays twelve musical staves, each representing a different major scale. The scales are: F# major, B major, E major, A major, D major, G major, C major, F major, B-flat major, E-flat major, A-flat major, D-flat major, and G-flat major. Each staff is in 4/4 time and uses a treble clef. The notes are represented by vertical stems with small circles at the top, indicating pitch. The scales are constructed using eighth-note patterns, with some notes being sharp or flat to reflect the key signature.

BeBop- BeBop Melodic Minor Scales

d#

g#

c#

f#

b

e

a

d

g

c

f

bb

eb

BeBop- BeBop Harmonic Minor Scales

Sheet music for BeBop Harmonic Minor Scales across twelve keys:

- d# (F major)
- g# (C major)
- c# (G major)
- f# (D major)
- b (A major)
- e (E major)
- a (B major)
- d (F# major)
- g (C# major)
- c (G# major)
- f (D# major)
- bb (A# major)
- eb (E# major)

The music is written in 4/4 time and uses quarter notes. The scales are based on the harmonic minor mode, featuring a raised seventh degree (the leading tone) and a lowered second degree.

