

It's All About What Shift You're On

by Bill Scott
Illustrations by Marleda Upton

Universal shifting pattern blocks can be a tremendous aid in performing and understanding all major scales and their parallel harmonic and melodic partners. They also serve as a vehicle for mastering the double bass fingerboard.

Double bassists are taught to finger scales specifically for each individual passage, often using the lower positions on the E, A and D strings with the majority of shifting occurring on the G string. In working with my double bass students at Western Kentucky University, I have developed "universal shifting pattern blocks" that facilitate the memorization of these 36 scales while expanding the bassists shifting agility, fingerboard knowledge and across-string shifting patterns.

The illustration to the right shows four-note fingered blocks on the E, A and G strings and the three-note fingered block on the D string. These blocks represent the shifting positions for the F# Major, harmonic minor and melodic minor scales.

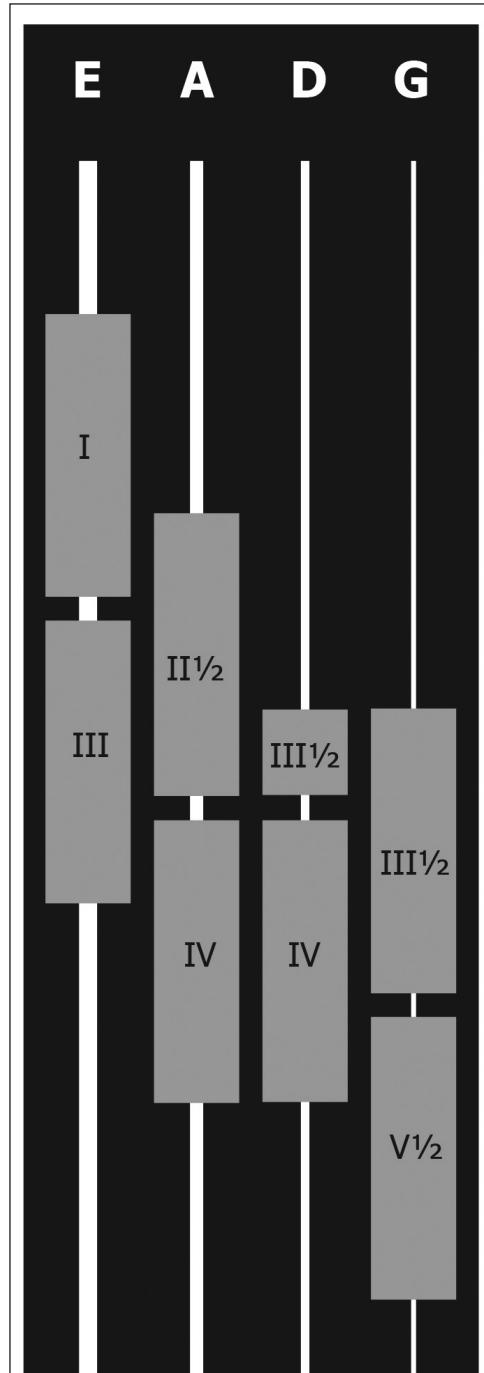
All the major and minor scales can be performed using two shifting block patterns:

Four-note fingered block:

The two positions are $1\frac{1}{2}$ hand widths apart and represent a shifting distance of a Minor 3rd (the distance between positions I and III).

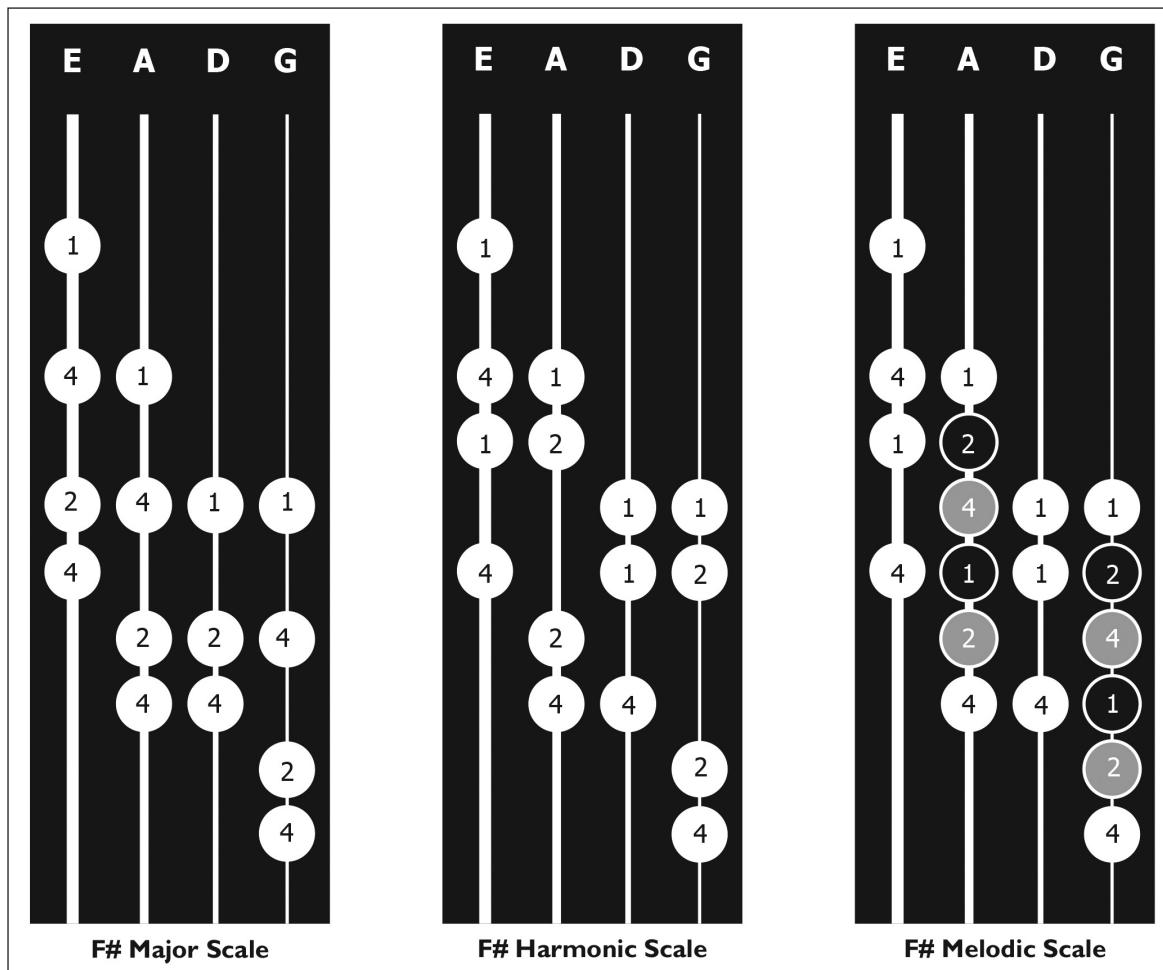
Three-note fingered block:

The two positions are a $\frac{1}{2}$ hand width apart and represent a shifting distance of a Minor 2nd (the distance between positions I and II).



The illustration above shows a 4-Note Fingered Blocks on the E, A, and G strings and the 3-Note Fingered Block on the D string. These blocks represent the shifting positions for the F# Major, Harmonic Minor, and Melodic Minor scales.

The following three examples illustrate the fingerings used for each of the parallel scales.



By comparing the top and bottom finger dot on each string with all three examples, it should be apparent that all three F# scale genres are using identical positions and shifts. To show the altered tones of the melodic minor, gray dots were used for ascending and black dots for descending changes. It also should be noted that at each string crossing the hand will always shift a $\frac{1}{2}$ hand-width; it will be a northward shift on ascending scales (toward the scroll) and a southward shift on descending scales (toward the bridge).

There are three rules to remember that make performing the major and minor scales in this manner very easy:

Rule No. 1: The shifts that occur at string crossings are all $\frac{1}{2}$ hand-width (semi-tone) shifts. These half hand-width shifts are north for ascending scales and south for descending scales.

Rule No. 2: On scales that start with a fingered note, the shifts that occur on each string are $1\frac{1}{2}$ hand width shifts (the shifting distance between 1st and 3rd position or 3 semi-tones). The only exception to this is in the second octave between pitches "RE" and "MI" where the shifting distance is a $\frac{1}{2}$ hand-width (semi-tone).

Rule No. 3: Scales that start with an open string also have an additional $\frac{1}{2}$ hand-width shift between pitches "RE" and "MI" in the first octave.

The advantage in practicing parallel scales with identical shifts and string crossings is that it increases the students understanding of the differences in melodic minor, harmonic minor and major scales and also promotes the use of upper position work on the lower three strings. I have developed the following flow charts to facilitate the memorization of each scale and their parallel partners.

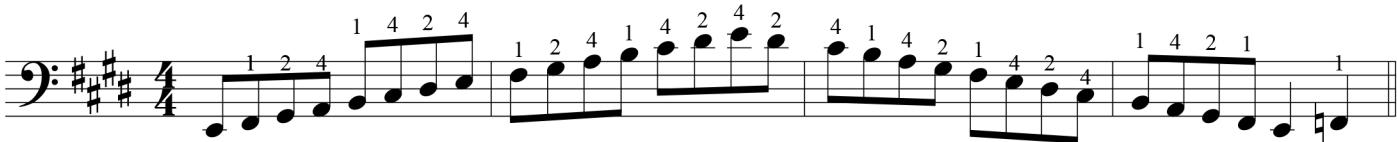
The square ■ represents the $1\frac{1}{2}$ hand-width shift. The triangle ▼ represents the $\frac{1}{2}$ hand-width shift.

The applicable flow charts precede each scale or group of scales. It is common knowledge that the 3rd finger replaces the 4th finger in upper positions. This will, of course, vary depending on the instrument shape and the size of the bass player's hand. Therefore, for clarity, I only have listed the 4th finger in the scale flow charts with the understanding that the 3rd finger can and will be substituted.

Major Scales: E Flow Chart

Ascending: ①④▼②④ (shift ▼ north) ①④■②④ (shift ▼ north) ①▼②④ (shift ▼ north) ①④■②④
 E A D G

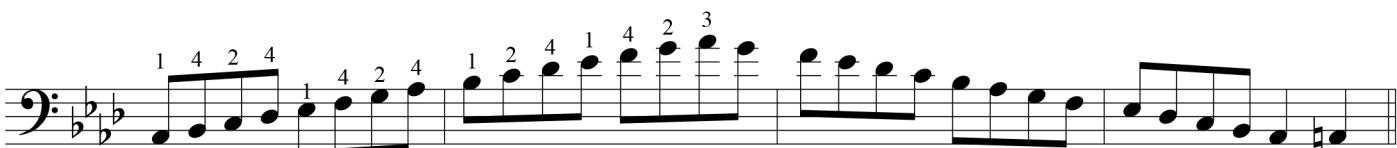
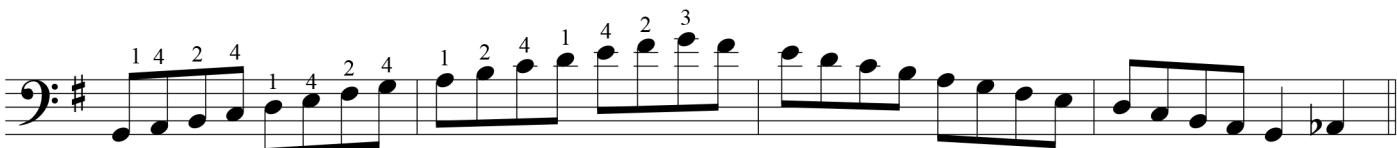
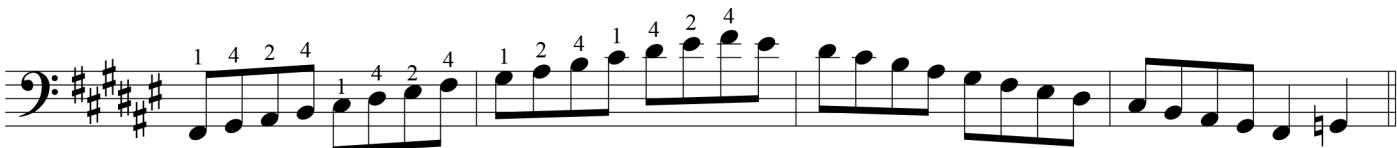
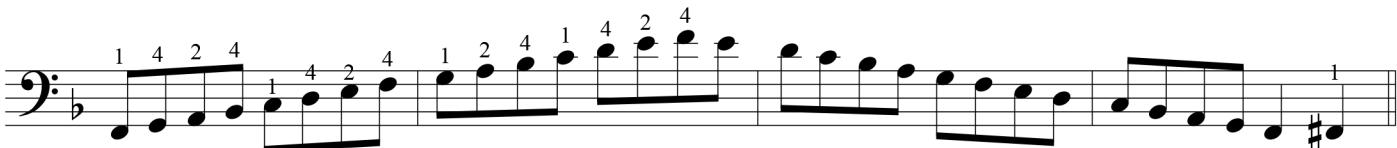
Descending: ④②■④① (shift ▼ south) ④②▼① (shift ▼ south) ④②■④① (shift ▼ south) ④②▼①⑧
 G D A E



Major Scales: F, F#, G, A♭ Flow Chart

Ascending: ①④■②④ (shift ▼ north) ①④■②④ (shift ▼ north) ①▼②④ (shift ▼ north) ①④■②④
 E A D G

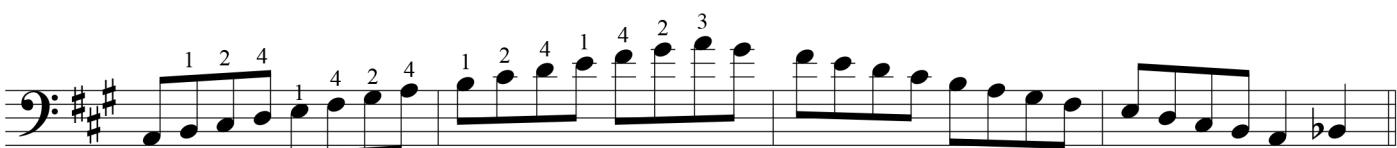
Descending: ④②■④① (shift ▼ south) ④②▼① (shift ▼ south) ④②■④① (shift ▼ south) ④②■④①
 G D A E



Major Scales: A Flow Chart

Ascending: ①④▼②④ (shift ▼ north) ①④■②④ (shift ▼ north) ①▼②④■①④■②④
 A D G

Descending: ④②■④①■④②▼① (shift ▼ south) ④②■④① (shift ▼ south) ④②▼①⑧
 G D A



Major Scales: B♭, B, C, C♯ Flow Chart

Ascending: ① ④ ■ ② ④ (shift ▼ north) ① ④ ■ ② ④ (shift ▼ north) ① ▼ ② ④ ■ ① ④ ■ ② ④
A D G

Descending: ④ ② ■ ④ ① ■ ④ ② ▼ ① (shift ▼ south) ④ ② ■ ④ ① (shift ▼ south) ④ ② ■ ④ ①
G D A

Four staves of musical notation for the B-flat major scale. Each staff consists of a bass clef, a key signature of one flat (B-flat), and a 16th-note pattern. The first staff starts on B-flat (4th line). The second staff starts on C (3rd line). The third staff starts on D (2nd line). The fourth staff starts on E-flat (1st line). Fingerings are indicated above the notes: 1 4 2 4, 1 4 2 4, 1 2 4, 1 4 2 3, 1 4 2 4, 1 2 4, 1 4 2 3, 1 4 2 4, 1 2 3 1 3 2 3, 1 2 3 1 3 2 3, 1 2 3 1 3 2 3, 1 2 3 1 3 2 3.

Major Scales: D Flow Chart

Ascending: ⑩ ① ▼ ② ④ (shift ▼ north) ① ④ ■ ② ④ ■ ① ▼ ② ④ ■ ① ④ ■ ② ④
D G

Descending: ④ ② ■ ④ ① ■ ④ ② ▼ ① ■ ④ ② ■ ④ ① (shift ▼ south) ④ ② ▼ ① ⑩
G D

Three staves of musical notation for the D major scale. Each staff consists of a bass clef, a key signature of one sharp (F-sharp), and a 16th-note pattern. The first staff starts on D (2nd line). The second staff starts on E (3rd line). The third staff starts on F-sharp (4th line). Fingerings are indicated above the notes: 1 2 4, 1 4 2 4, 1 2 3 1 3 2 3, 1 2 3 1 3 2 3, 1 2 3 1 3 2 3, 1 2 3 1 3 2 3.

Major Scales: E♭ Flow Chart

Ascending: ① ④ ■ ② ④ (shift ▼ north) ① ④ ■ ② ④ ■ ① ▼ ② ④ ■ ① ④ ■ ② ④
D G

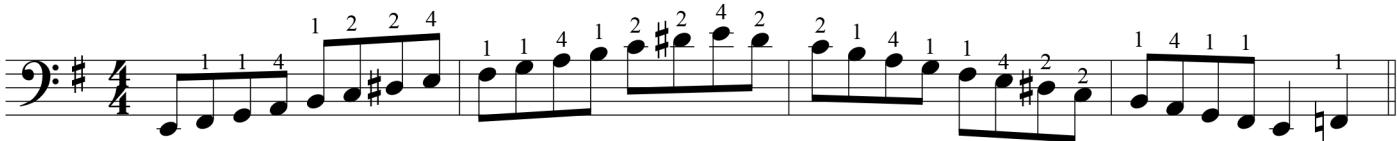
Descending: ④ ② ■ ④ ① ■ ④ ② ▼ ① ■ ④ ② ■ ④ ① (shift ▼ south) ④ ② ■ ④ ①
G D

Three staves of musical notation for the E-flat major scale. Each staff consists of a bass clef, a key signature of one flat (E-flat), and a 16th-note pattern. The first staff starts on E-flat (1st line). The second staff starts on F (2nd line). The third staff starts on G (3rd line). Fingerings are indicated above the notes: 1 4 2 4, 1 2 3 1 3 2 3, 1 2 3 1 3 2 3, 1 2 3 1 3 2 3, 1 2 3 1 3 2 3.

Harmonic Scales: E Flow Chart

Ascending: ①②▼①④ (shift ▼ north) ①②■②④ (shift ▼ north) ①▼①④ (shift ▼ north) ①②■②④
 E A D G

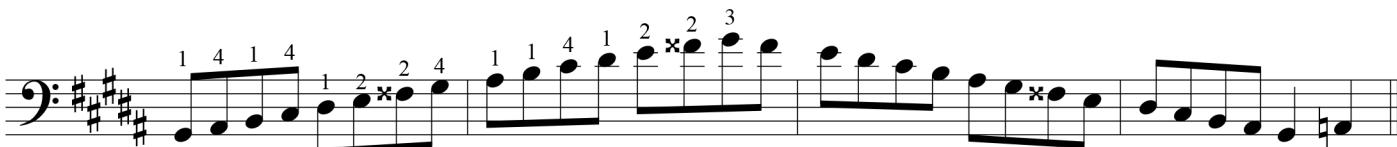
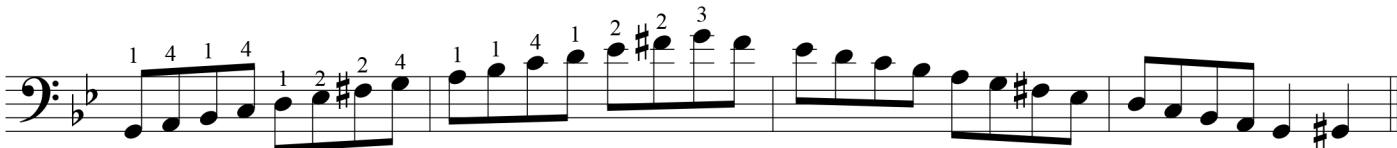
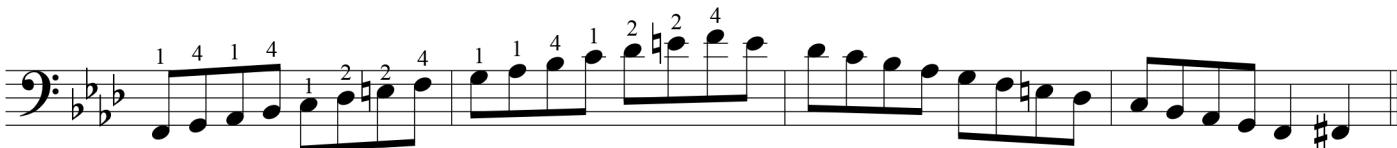
Descending: ④②■②① (shift ▼ south) ④①▼① (shift ▼ south) ④②■②① (shift ▼ south) ④①▼①④
 G D A E



Harmonic Scales: F, F#, G, A♭ Flow Chart

Ascending: ①④■①④ (shift ▼ north) ①②■②④ (shift ▼ north) ①▼①④ (shift ▼ north) ①②■②④
 E A D G

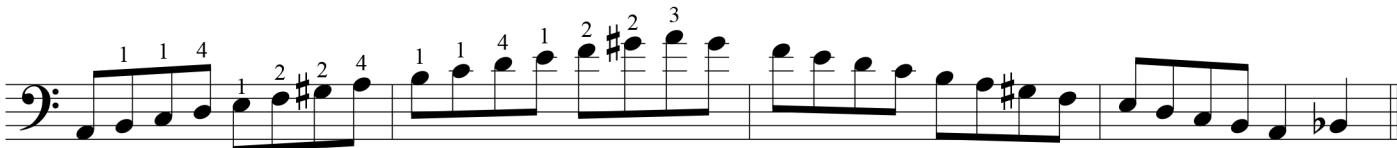
Descending: ④②■②① (shift ▼ south) ④①▼① (shift ▼ south) ④②■②① (shift ▼ south) ④①■④①
 G D A E



Harmonic Scales: A Flow Chart

Ascending: ①①▼①④ (shift ▼ north) ①②■②④ (shift ▼ north) ①▼①④■①②■②④
 A D G

Descending: ④②■②①■④①▼① (shift ▼ south) ④②■②① (shift ▼ south) ④①▼①④
 G D A



Harmonic Scales: B♭, B, C, C♯ Flow Chart

Ascending: ① ④ ■ ① ④ (shift ▼ north) ① ② ■ ② ④ (shift ▼ north) ① ▼ ① ④ ■ ① ② ■ ② ④
 A D G

Descending: ④ ② ■ ② ① ■ ④ ① ▼ ① (shift ▼ south) ④ ② ■ ② ① (shift ▼ south) ④ ① ■ ④ ①
 G D A

Harmonic Scales: D Flow Chart

Ascending: ② ① ▼ ① ④ (shift ▼ north) ① ② ■ ② ④ ■ ① ▼ ① ④ ■ ① ② ■ ② ④
 D G

Descending: ④ ② ■ ② ① ■ ④ ① ▼ ① ■ ④ ② ■ ② ① (shift ▼ south) ④ ① ▼ ① ②
 G D

Harmonic Scales: E♭ Flow Chart

Ascending: ① ④ ■ ① ④ (shift ▼ north) ① ② ■ ② ④ ■ ① ▼ ① ④ ■ ① ② ■ ② ④
 D G

Descending: ④ ② ■ ② ① ■ ④ ① ▼ ① ■ ④ ② ■ ② ① (shift ▼ south) ④ ① ■ ④ ①
 G D

Melodic Scales: E Flow Chart

Ascending: ⑤①▼①④ (shift ▼ north) ①④■②④ (shift ▼ north) ①▼①④ (shift ▼ north) ①④■②④
 E A D G

Descending: ④①■②① (shift ▼ south) ④①▼① (shift ▼ south) ④①■②① (shift ▼ south) ④①▼①⑤
 G D A E



Melodic Scales: F, F#, G, A♭ Flow Chart

Ascending: ①④■①④ (shift ▼ north) ①④■②④ (shift ▼ north) ①▼①④ (shift ▼ north) ①④■②④
 E A D G

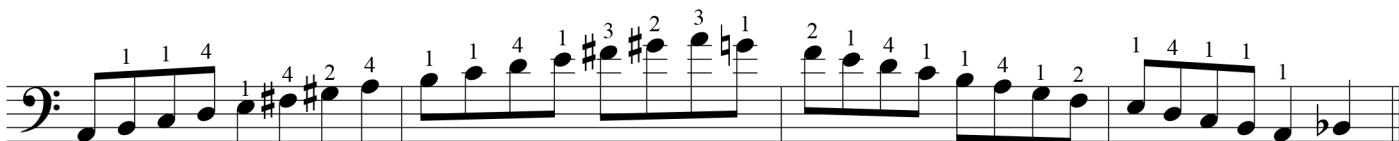
Descending: ④①■②① (shift ▼ south) ④①▼① (shift ▼ south) ④①■②① (shift ▼ south) ④①■④①
 G D A E



Melodic Scales: A Flow Chart

Ascending: ⑤①▼①④ (shift ▼ north) ①④■②④ (shift ▼ north) ①▼①④■①④■②④
 A D G

Descending: ④①■②①■④①▼① (shift ▼ south) ④①■②① (shift ▼ south) ④①▼①⑤
 G D A



Melodic Scales: B^b, B, C, C[#] Flow Chart

Ascending: ① ④ ■ ① ④ (shift ▼ north) ① ④ ■ ② ④ (shift ▼ north) ① ▼ ① ④ ■ ① ④ ■ ② ④
 A D G

Descending: ④ ① ■ ② ① ■ ④ ① ▼ ① (shift ▼ south) ④ ① ■ ② ① (shift ▼ south) ④ ① ■ ④ ①
 G D A

Melodic Scales: D Flow Chart

Ascending: ⑩ ① ▼ ① ④ (shift ▼ north) ① ④ ■ ② ④ ■ ① ▼ ① ④ ■ ① ④ ■ ② ④
 D G

Descending: ④ ① ■ ② ① ■ ④ ① ▼ ① ■ ④ ① ■ ② ① (shift ▼ south) ④ ① ▼ ① ⑩
 G D

Melodic Scales: E^b Flow Chart

Ascending: ① ④ ■ ① ④ (shift ▼ north) ① ④ ■ ② ④ ■ ① ▼ ① ④ ■ ① ④ ■ ② ④
 D G

Descending: ④ ① ■ ② ① ■ ④ ① ▼ ① ■ ④ ① ■ ② ① (shift ▼ south) ④ ① ■ ④ ①
 G D

In summary

Three types of visual cues have been used in this article to demonstrate the concept of universal shifting pattern blocks:

1. Fingerboard illustrations
2. Notes with fingerings
3. Flow charts

These visual cues give bassists the foundation for meeting diverse learning styles. Students will be able to extract what works best for them and be able to transfer it into both teaching and performance applications. I have found that there is never a unanimous preference in my double bass studio for the visuals that students prefer.

Universal shifting pattern blocks have proven to be highly beneficial to my collegiate double bass students. It has helped them to better understand the theoretical similarities and differences between the parallel scales and has streamlined the process for memorizing and playing them. It also has provided them with a greater technical proficiency for across-the-string shifting patterns that will continue to be of benefit throughout their careers.

Excerpts in this article were taken from "Power Warm-Up for the Double Bassist."



Bill Scott came to Western Kentucky University in 2003 as the Baker Professor of Music where he serves as music director of the symphony and teaches applied double bass. Prior to coming to Kentucky, Scott served eight seasons as music director and conductor of the Greater Spartanburg Philharmonic and 23 years as the orchestra coordinator for Spartanburg School District 7. Scott has a bachelor's degree in music education from the University of Wisconsin-Superior, a master's degree in string development and orchestral conducting from the University of Wisconsin, and a doctorate in orchestral conducting from the University of South Carolina. He is a published writer in the area of double bass pedagogy.



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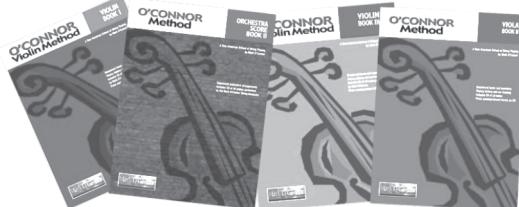
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