

Scales and Arpeggios for Guitar

By Mike Georgia

To keep things simple approach it like this.

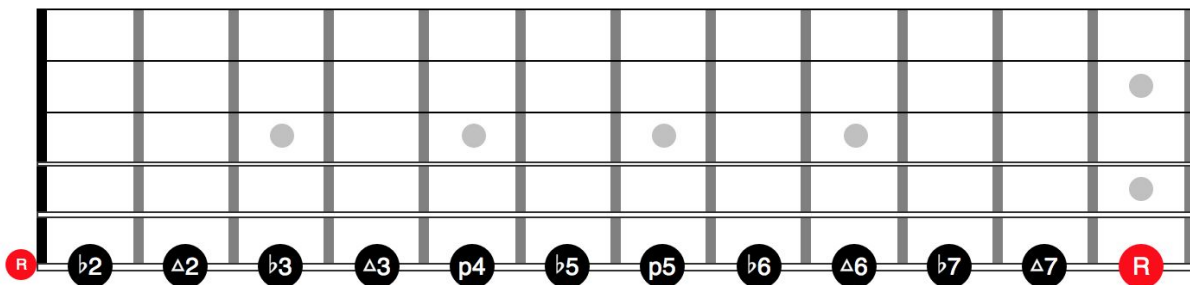
1. Everything is relative
2. The octave is divided into only 12 total notes
3. The corresponding shapes are about two octaves long
4. Use this as a reference. Take it little by little.
5. Learn solos and improvise over chord progressions to help you see and use the patterns. Everything will eventually sink in.

Memorize the 12 intervals within the octave:

Root, minor 2nd, major 2nd, minor 3rd, major 3rd, perfect 4th, tritone, perfect 5th, minor 6th, major 6th, minor 7th, major 7th, Octave

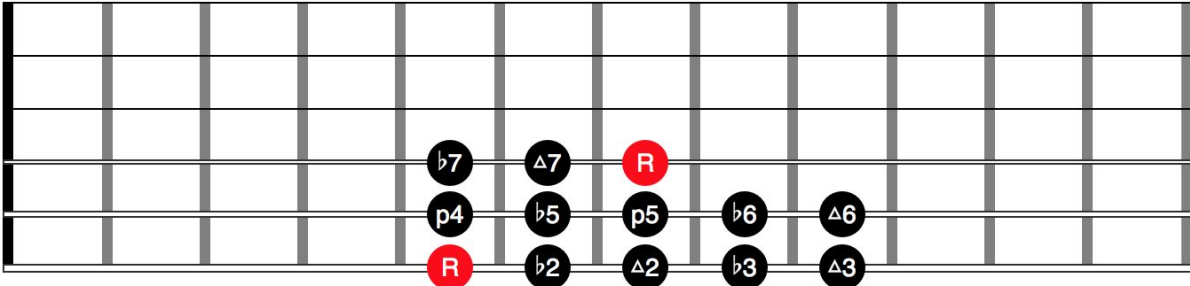
And/Or

Root, b2nd, 2nd, b3rd, 3rd, p4th, #4/b5, p5th, b6th, 6th, b7th, 7th, Octave



Layout

Across strings the notes either move “forward” up the neck,

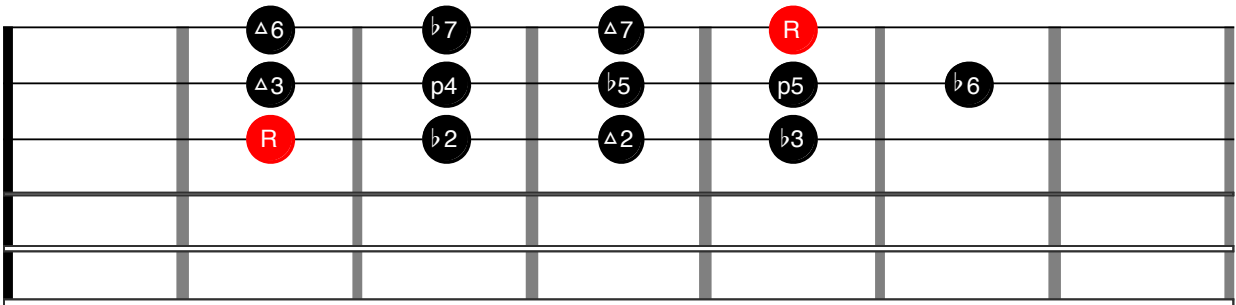
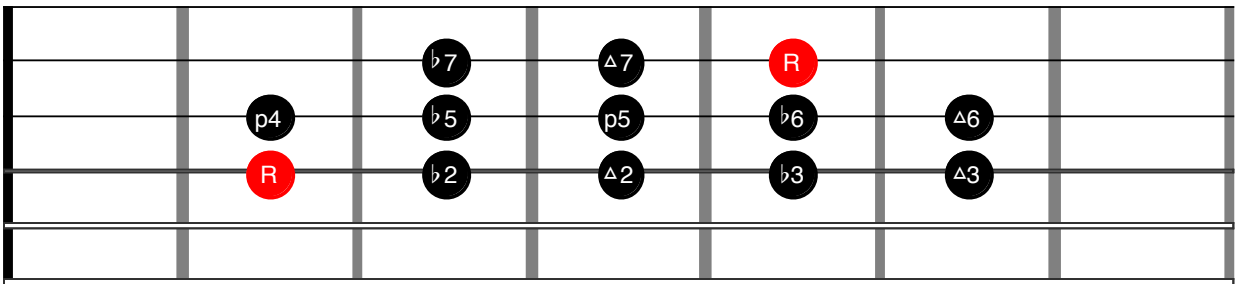
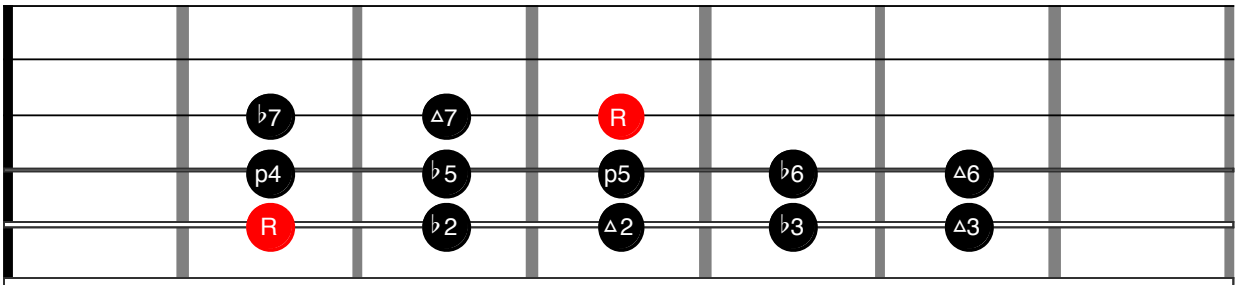
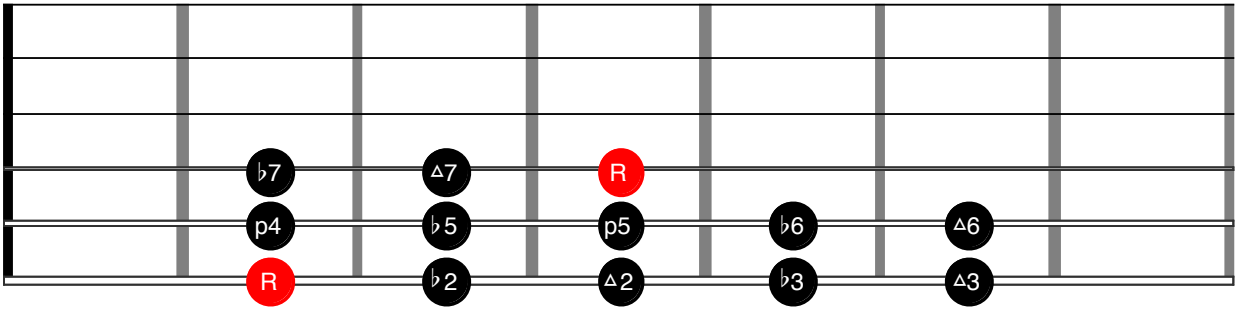


or back across the strings.



When moving from string group to string group keep in mind:

1. Since the B string is tuned one fret different from the other strings. The notes on the B and E strings move up one fret relative to the other strings.
2. This changes the perceived shape of the pattern
3. It also makes it so that you can comfortably move some notes to a different string than on other string sets.

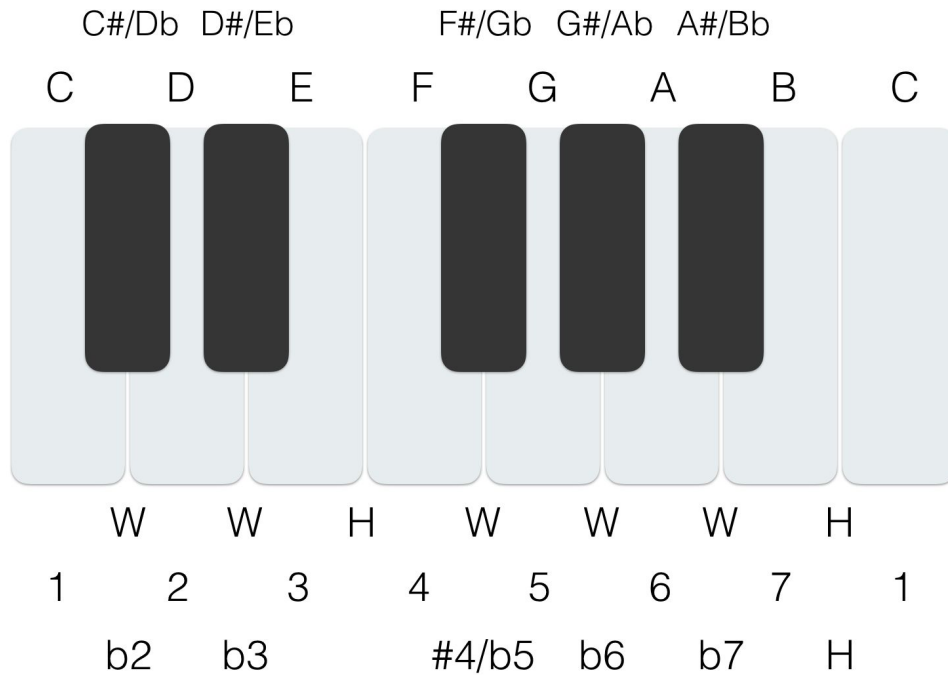


Scales

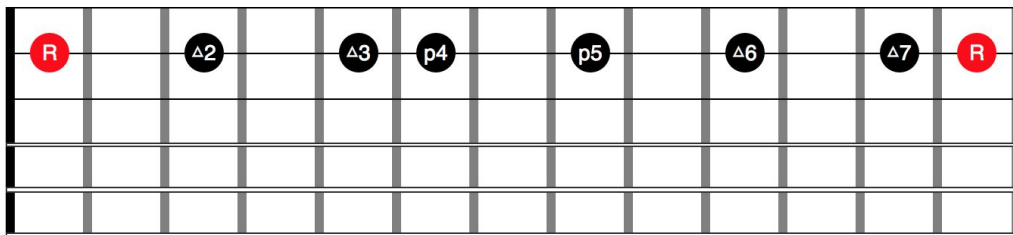
In general we can think of all scales as a derivative of the major scale.

1. The major scale uses one-note from each letter of the musical alphabet.
2. The major scale is easiest to see by looking at the white keys on the piano.
3. The white keys with a black key in between are a whole step apart and the ones without a black key in between are a half step. Creating this

Major Scale formula: 1 w 2 w 3 h 4 w 5 w 6 w 7 h 1



Here it is on the guitar:



Here are some common scale formulas.

Major	w w h, w w w h	1 w 2 w 3 h 4 w 5 w 6 w 7 h 1
Minor	w h w, w h w w	1 w 2 h b3 w 4 w 5 h b6 w b7 w 1
Harmonic Minor	w h w, w h 1.5 h	1 w 2 h b3 w 4 w 5 h b6 w+h 7 h 1
Melodic Minor	w h w, w w w h	1 w 2 h b3 w 4 w 5 w 6 w 7 h 1
Pentatonic Major	w w 1.5, w 1.5	1 w 2 w 3 w+h 5 w 6 w+h 1
Pentatonic Minor	1.5 w w, 1.5 w	1 w+h b3 w 4 w 5 w+h b7 w 1
Blues Major	w h h 1.5, w 1.5	1 w 2 h b3 h 3 w+h 5 w 6 w+h 1
Blues Minor	1.5 w h h, 1.5 w	1 w+h b3 w 4 h b5 h 5 w+h b7 w 1
Diminished WH	wh, wh, wh, wh	1 w 2 h b3 w 4 h b5 w #5 h 6 w 7 h 1
Diminished HW	hw, hw, hw, hw	1 h b2 w b3 h 3 w #4 h 5 w 6 h b7 w 1
Whole Tone	www, www	1 w 2 w 3 w #4 w #5 w b7 w 1
Harmonic Major	h 1.5 w, w w w h	1 h b2 w+h 3 w 4 w 5 w 6 w 7 h 1
Double Harmonic Major	h w+h w, w h 1.5 h	1 h b2 w+h 3 w 4 w 5 h b6 w+h 7 h 1

Arpeggios

Let's go over some chord construction. Chords are constructed by stacking every other note in the key like this:

1 - 3 - 5 - 7 - 9 (2) - 11 (4) - 13(6)

1. Basic major and minor chords are 1, 3, 5 then the notes are moved around to create different qualities of chords like: Major, Minor, Diminished, and Augmented
2. When you add the 7th you then get chords like: Major 7, Dominant 7, Minor 7, Minor 7 (b5), Diminished 7, Major 7 (#5), Dominant 7 (#5)
3. 2, 4, and 6 are called 9, 11, 13 when the 7th is present or Major7, Minor 7, Dom7, and Augmented chords can have the 9, 11, and 13 added to them.
4. You can replace the 3 with the 2 or 4. This is called suspended or sus2, sus4.
5. Adding the 2, but keeping the 3 is called add9.
6. 6th chords are when you replace the 5 with the 6
7. Chords with 9, 11, 13 are called extended chords and the varieties are as follows;

b9, 9, #9 (when a major 3rd is present)

11, #11

b13, 13

Here are some common chord formulas.

Major	1 - 3 - 5
Minor	1 - b3 - 5
Diminished	1 - b3 - b5
Augmented	1 - 3 - #5
Major 7	1 - 3 - 5 - 7
Dominant 7	1 - 3 - 5 - b7
Minor 7	1 - b3 - 5 - b7
Min 7 (b5)	1 - b3 - b5 - b7
Dim 7	1 - b3 - b5 - bb7
Maj 7 aug	1 - 3 - #5 - 7
Dom 7 aug	1 - 3 - #5 - b7
b9, #9, 11, #11, 13, b13	Dom + #9, b9, 11, #11, 13, b13
Maj9, Maj7(#11), Maj13	Maj 7 + 9, #11, 13
Min7(b9), Min9, Min11, Min13	Min 7 + b9, 9, 11, 13

Major Scale Modes

Each note in a scale can be considered the root. This is what the modes are. For instance if you start the major scale on the 6th note you are playing the natural minor scale and the 3rd degree of the minor scale is the major scale.

1. It also helps to think of modes as major (3) or minor (b3), which depends on the third.
2. Next notice how each mode has one or two notes that makes it unique from the major or natural minor scale.
3. Modes can also be thought of as chords scales. For instance Dorian is a min13 chord, Lydian is maj9(#11), Phrygian is min7(b9), Locrian is min7(b5,b9)

Ionian (maj7)	w w h, w w w h	1 w 2 w 3 h 4 w 5 w 6 w 7 h 1
Dorian (min7)	w h w, w w h w	1 w 2 h b3 w 4 w 5 w 6 h b7 w 1
Phrygian (min7)	h w w, w h w w	1 h b2 w b3 w 4 w 5 h b6 w b7 w 1
Lydian (maj7)	w w w, h w w h	1 w 2 w 3 w #4 h 5 w 6 w 7 w 1
Mixolydian (dom7)	w w h, w w h w	1 w 2 w 3 h 4 w 5 w 6 h b7 w 1
Aeolian (min7)	w h w, w h w w	1 w 2 h b3 w 4 w 5 h b6 w b7 w 1
Locrian (min7)	h w w, h w w w	1 h b2 w b3 w 4 h b5 w b6 w b7 w 1

Harmonic Minor Modes

The harmonic minor scale is definitely an interesting one with its unique step and a half interval creating a very eastern sound to the western ear.

1. Notice how the mode names are derivative of the major scale modes.
2. A common use of harmonic minor is when there is a major V chord in a minor key. The major 3rd of the V chord is not in the natural minor scale, but it **is** the natural 7th in harmonic minor.
3. Another use for harmonic minor that creeps up from time to time is the 5th mode. With it's Dom7 home chord and b2 it can be a very cool sound to incorporate.

Harmonic Minor	w h w, w h 1.5 h	1 w 2 h b3 w 4 w 5 h b6 w+h 7 h 1
Locrian natural 6	h w w, h 1.5 h w	1 h b2 w b3 w 4 h b5 w+h 6 h b7 w 1
Ionian #5	w w h, 1.5 h w h	1 w 2 w 3 h 4 w+h #5 h 6 w 7 h 1
Dorian #4	w h 1.5, h w h w	1 w 2 h b3 1.5 #4 h 5 w 6 h b7 w 1
Phrygian Dominant	h 1.5 h, w h w w	1 h b2 w+h 3 h 4 w 5 h b6 w b7 w 1
Lydian #2	1.5 h w, h w w h	1 w+h #2 h 3 w #4 h 5 w 6 w 7 h 1
Superlocrian Dim.	h w h, w w w 1.5	1 h b2 w b3 h 3 w b5 w bb7 w w+h 1

Melodic Minor Modes

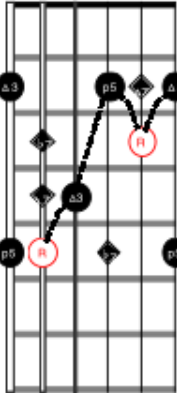
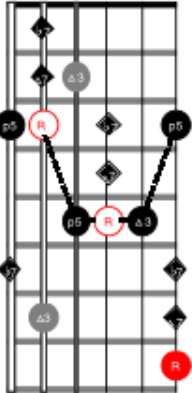
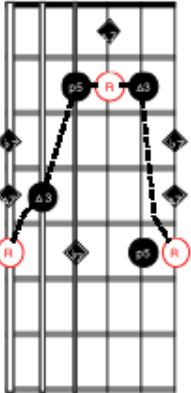
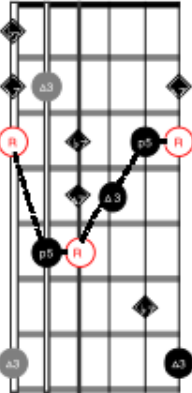
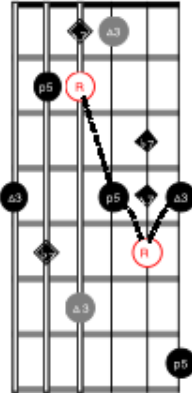
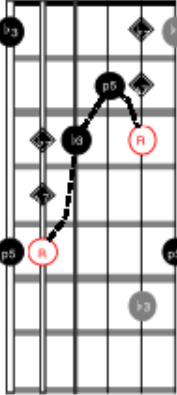
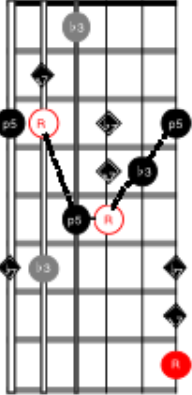
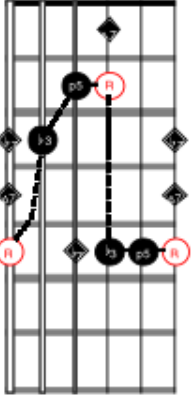
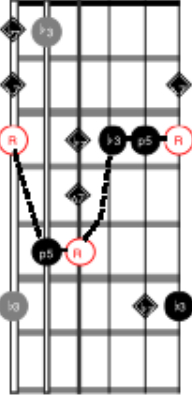
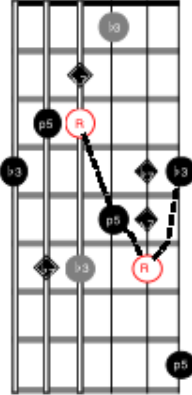
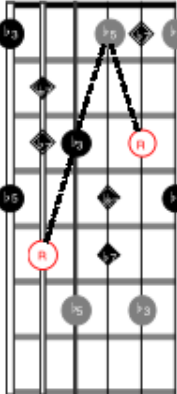
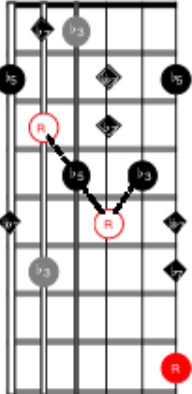
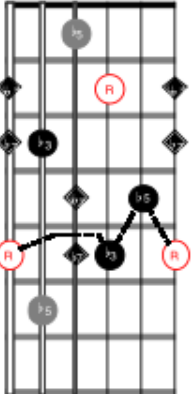
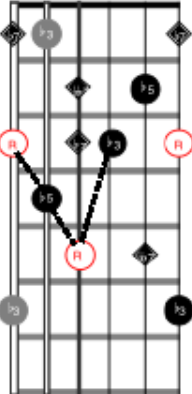
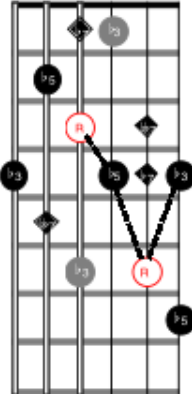
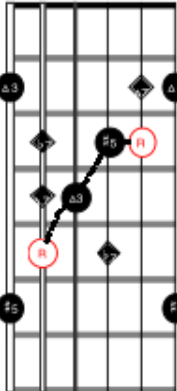
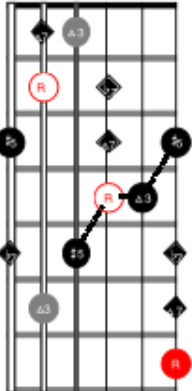
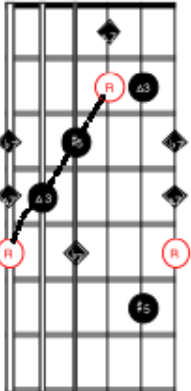
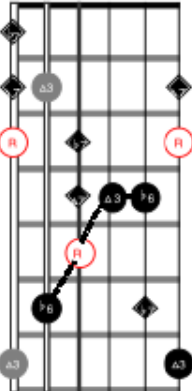
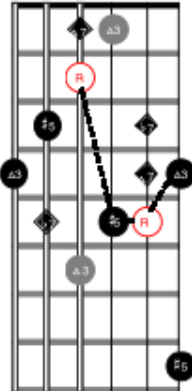
The melodic minor scale is closely related to the major scale with its natural 6 and 7.

1. In classical music the Melodic minor scale is played going up and the natural minor scale is played going down.
2. Super Locrian is often used in jazz over an Altered Dominant chord (b9, #9, b5, #5, #11, b13)

Melodic Minor	w h w, w w w h	1 w 2 h b3 w 4 w 5 w 6 w 7 h 1
Dorian b2	h w w, w w h w	1 h b2 w b3 w 4 w 5 w 6 h b7 w 1
Lydian Aug	w w w, w h w h	1 w 2 w 3 w #4 w #5 h 6 w 7 h 1
Lydian Dom	w w w, h w h w	1 w 2 w 3 w #4 h 5 w 6 h b7 w 1
Mixolydian b6	w w h, w h w w	1 w 2 w 3 h 4 w 5 h b6 w b7 w 1
Locrian natural 2	w h w, h w w w	1 w 2 h b3 w 4 h b5 w b6 w b7 w 1
Super Locrian (Altered)	h w h, w w w w	1 h b2 w #2 h 3 w #4/b5 w #5/b6 w b7 w 1

Arpeggio and Scale Box Shapes

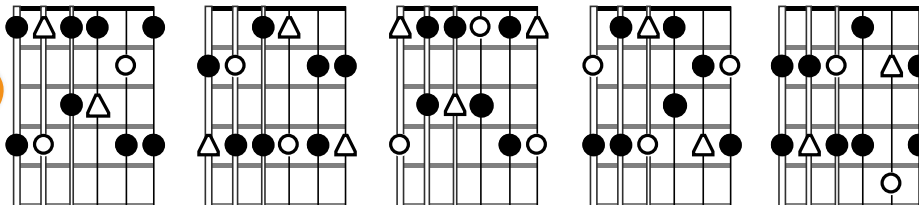
Major Arpeggio	C shape	A shape	G shape	E shape	D shape
	Cm shape	Am shape	Gm shape	Em shape	Dm shape
	C dim shape	A dim shape	G dim shape	E dim shape	D dim shape
	C aug shape	A aug shape	G aug shape	E aug shape	D aug shape
Minor Arpeggio					
Diminished Arpeggio					
Augmented Arpeggio					

<p>Major7 Dom7</p> <p>Minor7 Min(maj7)</p> <p>Min7(b5) Dim7</p> <p>Maj7(Aug) Dom7(Aug)</p>	<p>C shape</p> 	<p>A shape</p> 	<p>G shape</p> 	<p>E shape</p> 	<p>D shape</p> 
	<p>Cm shape</p> 	<p>Am shape</p> 	<p>Gm shape</p> 	<p>Em shape</p> 	<p>Dm shape</p> 
	<p>Cm shape</p> 	<p>Am shape</p> 	<p>Gm shape</p> 	<p>Em shape</p> 	<p>Dm shape</p> 
	<p>C aug shape</p> 	<p>A aug shape</p> 	<p>G aug shape</p> 	<p>E aug shape</p> 	<p>D aug shape</p> 

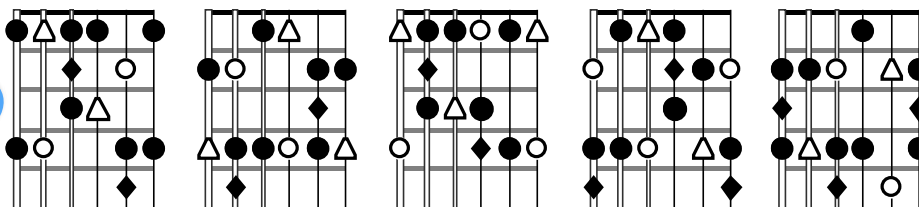
○ = Major Root △ = Minor Root ◆ = Blues Note ● = Scale Tones

C/Am Shape A/Gm Shape G/Em Shape E/Dm Shape D/Cm Shape

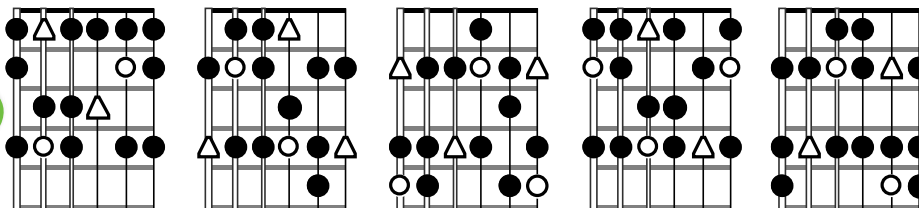
Pentatonic



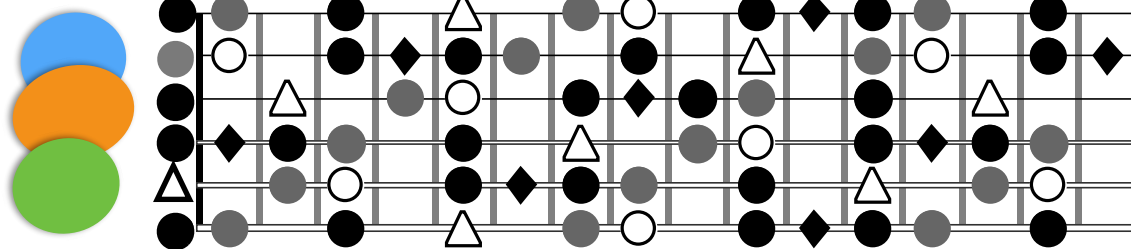
Blues



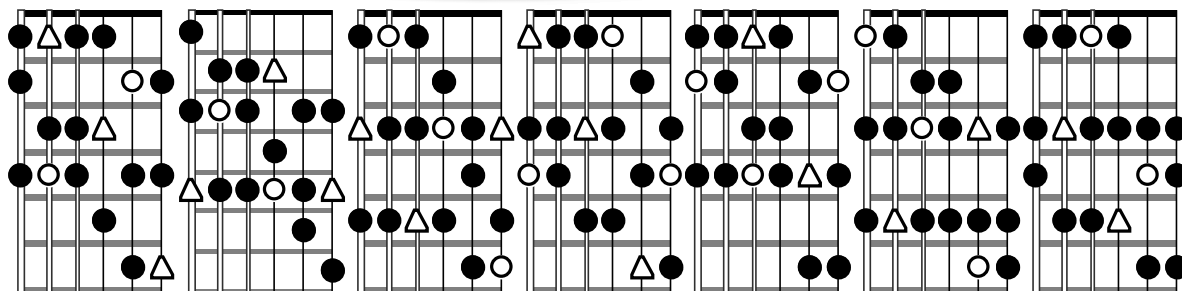
Natural Major/Minor



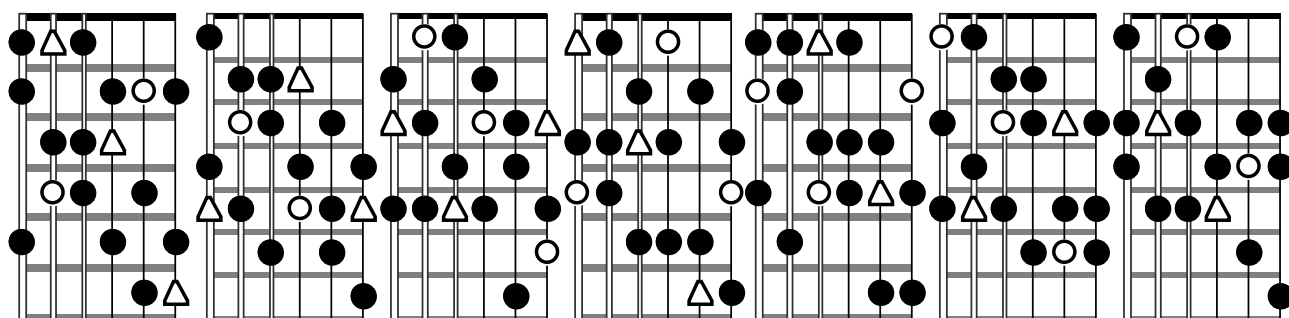
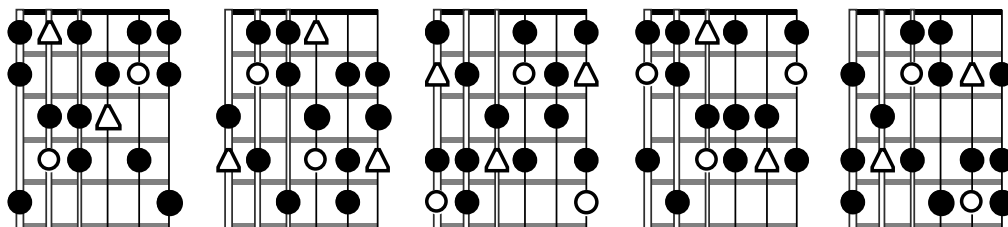
Pentatonic and Blues scale notes in Black, added Natural Major/Minor scale notes in grey



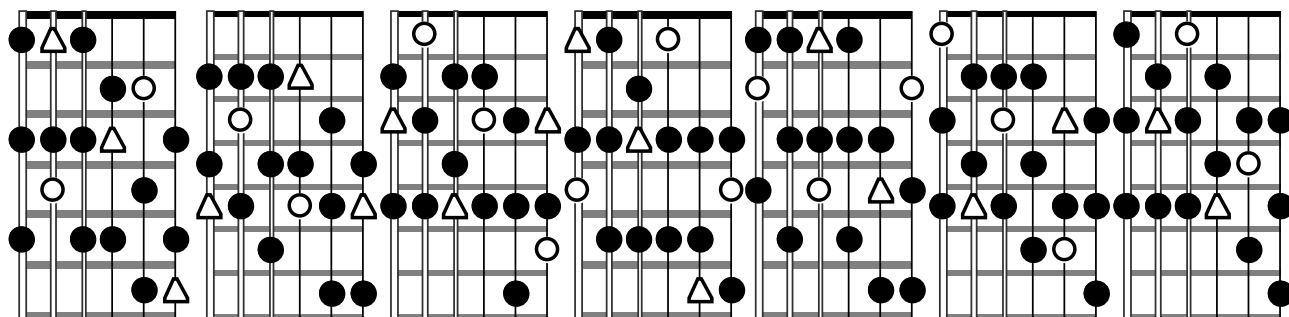
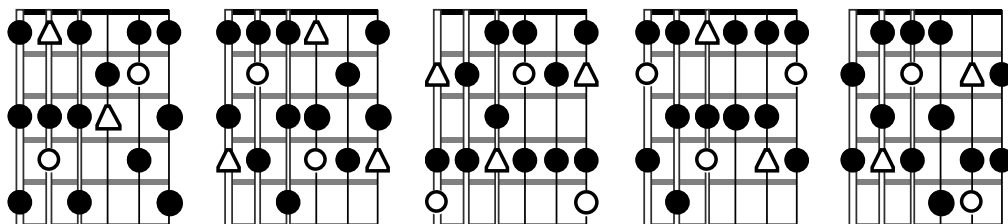
Natural Major/Minor: Three note per string patterns



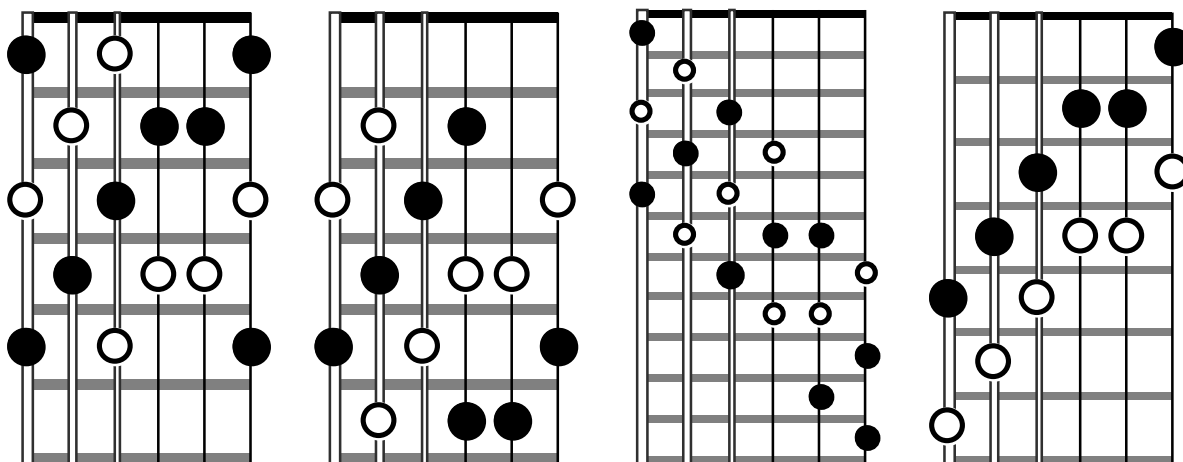
Harmonic Minor



Melodic Minor



Whole Tone



Diminished

