

Lesson 1 – Overview

Introduction

In this lesson, I introduce the harmonic scale, the major scale, linear scales, note naming, musical intervals and the standard tuning for the guitar.

I also show five major triadic chord forms. The triads are all three note chords, and they are the most basic chords. In this lesson, the E major, A major, G major, D major and C major chords are introduced. These chords are the basis of the metafrets system, and of the better known CAGED system.

I show a couple of practice pieces, played in the open position, that is, up by the nut. I use open strings where possible.

This lesson will take at least hour. It is probably the most difficult and abstract of all of the lessons. I recommend that you skim it, and try to play through some of the scales, as well as try to play the pieces. Come back to it later after you start to learn a few more chords and scales in the system.

Chromatic Scale

Here are the notes of the full chromatic scale:

Degree	1	2	3	4	5	6	7	8	9	10	11	12	13
Flats		D b		E b	F b		G b		A b		B b	C b	
Naturals	C		D		E	F		G		A		B	C
Sharps	B \sharp	C \sharp		D \sharp		E \sharp	F \sharp		G \sharp		A \sharp		B \sharp

Chromatic Scale

The diagram, Chromatic Scale, represents the notes comprising the full semi-tone based chromatic scale. This encompasses a full octave. The pattern repeats at the octave. The letters represent the notes being played. The notes are given along with the more common enharmonic equivalents. For instance, A \sharp and B b are the same pitch, but are named differently according to the context. The first row, degree, gives the ordinal position of the note starting at some note designated as the root. In this case, we use the note C. The second, third and fourth row give alternative names for the notes at a degree. The second row, Flats, gives the note name as a flattened note, when appropriate. The third row, Naturals, gives the note name as a natural note, neither sharp nor flat, as appropriate. The fourth row, Sharps, give the note name as a sharpened note, when

appropriate. A flattened note is a semi-tone lower than an unflattened note. A sharpened note is a semi-tone higher than an unsharpened note. Each note is a semi-tone from the next.

There may be several names for a give note. There may be a natural name such as C, D, E, F, G, A, or B. In addition, the pitch of the natural note may be raised a musical distance of a semi-tone (also half-step and half-tone). This is done with the sharp sign, “#”. The pitch of the natural note may be lowered a semi-tone. This is done with the flat sign, “b”. Some pitches may be named with a natural name, a sharpened name, or a flattened name, or some combination of these. The name used depends on the context. The pitch is the same, but the exact name used depends on the key and perhaps other considerations.

Tuning

In the standard tuning used for the guitar, the strings are numbered from 1 to 6, with 1 being the thinnest and highest pitched, and 6 being the thickest and lowest pitched. The tension of the strings is adjusted until the following notes are heard on strings 6 to 1: E, A, D, G, B, E. Note that the lowest string, number 6, and the highest string, number 1 are both the note E, but the E on the 1st string is two octaves above the E on the 6th string. Please, buy an electronic tuner and use it every time you play, if not more often. They are cheap and easy to use, and playing out of tune will impair your sense of pitch.

Major Scale

The major scale has the pattern:

Degree	I		II		III	IV		V		VI		VII	I
C Major Scale	C		D		E	F		G		A		B	C
Distance	Tone		Tone		Semi-tone		Tone		Tone		Semi-tone		

Major Scale

The diagram, Major Scale, represents the notes comprising the most common scale in western music. The first row, degree, gives the ordinal position of the note starting at some note designated as the root. Each note is given a number, conventionally represented in Roman Numerals. This number is referred to as the Degree of the Scale. The second row gives the note name. The letters represent the notes being played. The notes of the C Major Scale are presented as an example. Note that there are no sharps or flats. It repeats at a higher pitch after the seven notes.

The eighth note is referred to as being an octave above the 1st -- It actually vibrates at twice the rate. To the ear, it sounds somewhat similar. The third row, Distance, gives the distance in tones between adjacent notes. Tone represents twice the musical distance

Linear Scales on the Fingerboard

If you start anywhere on any string, and continue down or back for 12 notes, you have played a chromatic scale in a linear fashion. If you play on one string a pattern of tone, tone, semitone, tone, tone, tone, semi-tone, you have played a major scale in a linear fashion.

The fretboard of the guitar in standard tuning has the following notes.

		String					
		6	5	4	3	2	1
Fret							
Nut		E/F \flat	A	D	G	B/C \flat	E/F \flat
1		E#/F	A#/B \flat	D#/E \flat	G#/A \flat	B#/C	E#/F
2		F#/G \flat	B/C \flat	E/F \flat	A	C#/D \flat	F#/G \flat
3		G	B#/C	F	A#/B \flat	D	G
4		G#/A \flat	C#/D \flat	F#/G \flat	B/C \flat	D#/E \flat	G#/A \flat
5		A	D	G	B#/C	E/F \flat	A
6		A#/B \flat	D#/E \flat	G#/A \flat	C#/D \flat	F	A#/B \flat
7		B/C \flat	E/F \flat	A	D	F#/G \flat	B/C \flat
8		B#/C	F	A#/B \flat	D#/E \flat	G	B#/C
9		C#/D \flat	F#/G \flat	B/C \flat	E/F \flat	G#/A \flat	C#/D \flat
10		D	G	B#/C	F	A	D
11		D#/E \flat	G#/A \flat	C#/D \flat	F#/G \flat	A#/B \flat	D#/E \flat
12		E/F \flat	A	D	G	B/C \flat	E/F \flat
13						B#/C	

Fretboard Layout in Standard Tuning

The diagram, Fretboard Layout in Standard Tuning, represents the fretboard of the guitar. The strings are labelled, going from left to right, 6, 5, ..., 1. The frets are labelled, going from top to bottom, Nut, 1, 2, ..., 13. This encompasses a full octave for each string. The pattern repeats at the octave. The letters represent the notes being played. The notes are given along with the more common enharmonic equivalents. For instance, A# and B \flat are the same pitch, but are named differently according to the context.

Note that some notes have letters separated by a forward slash. This is because many notes have more than one possible name. The actual name depends on the context, generally on the key. Such notes are called enharmonic equivalents. They sound the same, but the names are chosen according to the context.

Five Core Open Major Chords

There are five core chord shapes on the guitar fretboard. Most guitarists start out by learning some or all of the shapes at the nut, in 1st or open position. These shapes have variations for each of the chord types, and within that further minor variations. Not all of the variations are playable at the nut position. A number are scarcely playable at all, since they would require more than the normal number of fingers, extreme flexibility and dexterity, or extremely long fingers. Regardless, the five shapes are still at the core of the guitar when it is tuned in standard fashion.

The forms are numbered in Metafrets according to the string where the root closest to the nut is found. In this section, I will show the five forms using the open string major chords. Each chord is a perfect fourth apart from the next.

The forms are numbered 1st to 5th, or more specifically in this case, 1st Major to 5th Major. The form number to form root is as follows:

Form	Name at Nut
1 st Major	E Major
2 nd Major	A Major
3 rd Major	D Major
4 th Major	G Major
5 th Major	C Major

Form Number to Form Root

The diagram, Form Number to Form Root, represents the metachord form number and the corresponding chord name at the open position, that is, the chord is played at the nut. Major chords are used for illustrative purposes. The chord shapes discussed are all commonly used forms, learned by almost all guitarists. The use of a number to describe the first two is sometimes seen for the bar chord equivalents of these forms. I have not seen the use of this numbering scheme for the last three forms, but I expect that it has been used.

The notion of chord forms and metachord forms that are derived by transposition across the frets – up a perfect 4th – echoes the discussion for scale forms and metascales. It is absolutely central to understand this notion to really understand the Metafrets system. Below, this is shown using some open position core chord shapes.

Form	1 st Major Form	2 nd Major Form	3 rd Major Form	4 th Major Form	5 th Major Form
Name	E Major	A Major	D Major	G Major	C Major
Chord	<p style="text-align: center;">Emaj</p> <p style="text-align: center;">E B E G# B E</p> <p style="text-align: center;">1 5 1 3 5 1</p>	<p style="text-align: center;">Amaj/E</p> <p style="text-align: center;">E A E A C# E</p> <p style="text-align: center;">5 1 5 1 3 5</p>	<p style="text-align: center;">Dmaj/F#</p> <p style="text-align: center;">F# A D A D F#</p> <p style="text-align: center;">3 5 1 5 1 3</p>	<p style="text-align: center;">Gmaj</p> <p style="text-align: center;">G B D G D G</p> <p style="text-align: center;">1 3 5 1 5 1</p>	<p style="text-align: center;">Cmaj/G</p> <p style="text-align: center;">G C E G C G</p> <p style="text-align: center;">5 1 3 5 1 5</p>

Five Core Open Major Chords

The diagram, Five Core Open Major Chords, represents the core major chord forms in the open position. Note that each form is a transposition of the preceding form. Every note has gone up by a perfect fourth. In effect, you have picked up the chord, and moved it up by one string to a higher pitched set of strings. The note on the highest string, the 1st or high E string is duplicated two octaves below on the lowest string, the low E string. Because of the irregularity in the standard tuning for intervals sizes, there must be an adjustment of a semi-tone made on the 2nd or B string. A note that was on a given fret or at the nut in the original form must be played one fret higher in the new form. This changes the shape of the fingering for the chord. Note the numbers at the base of each chord diagram represent the chord formula for the chord.

Chord and Scale Form Classification

Each chord of simple 8 note scale is given a classification based on the position of the chord root or potential roots for a closely related shape. Chord forms go 1st, 2nd, 3rd, 4th, and 5th. These will be explained as each new form is introduced. At the top of the chord chart is the name of the note on the string underneath. On the bottom of the chart is the degree of

the scale of the note. If there is no entry, it means that the string is not played.

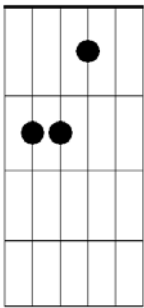
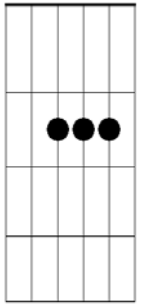
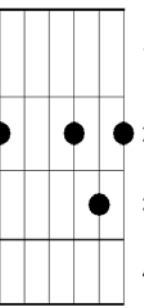
The simple scale forms are of two types, M-L (start with middle finger and end with little finger) and L-M (start with little finger and end with middle finger). These are also classified 1st, 2nd, 3rd, 4th, and 5th.

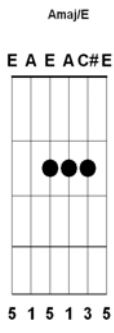
Practice Piece: Found a Peanut

The old children's song, Found a Peanut, is presented here, with chords and first verse lyrics. Strum downwards from the 6th string to the 1st string, with one downward strum per chord.

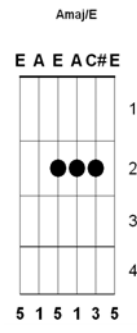
Here are the chords. Note the form numbers and names for each. Later, the significance will become clearer.

The D major is not the form that you will typically play, since it is somewhat tricky. Give it a try anyway. Later, an easier shape for this chord will be presented. If you are having great trouble, don't try to make a note on the 6th string, and don't play that string.

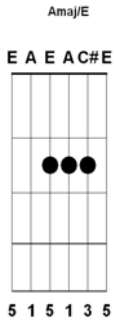
Form	1 st Major Form	2 nd Major Form	3 rd Major Form
Name	E Major	A Major	D Major
Chord	<p>Emaj</p> <p>E B E G# B E</p>  <p>1 5 1 3 5 1</p>	<p>Amaj/E</p> <p>E A E A C# E</p>  <p>5 1 5 1 3 5</p>	<p>Dmaj/F#</p> <p>F# A D A D F#</p>  <p>3 5 1 5 1 3</p>



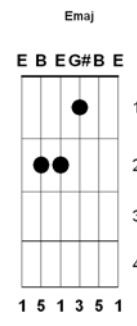
Found a pea nut.



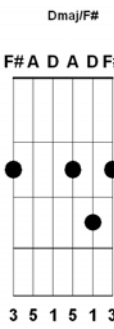
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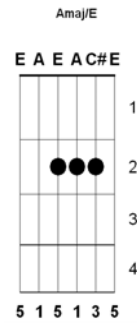
Found a p - ea nut



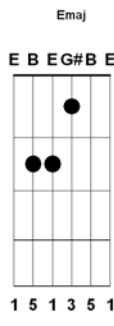
Last night ...



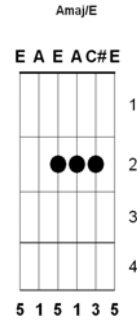
Last night I



Found a pea nut.



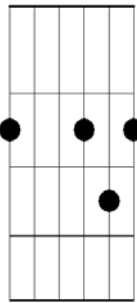
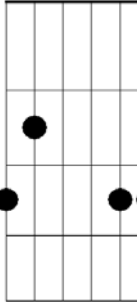
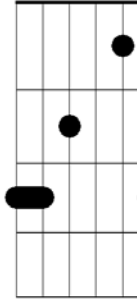
Found a p - ea nut

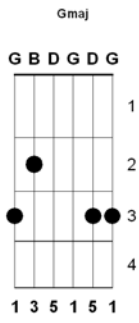


last Night. ...

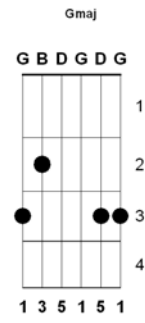
Practice Piece Variation: Found a Peanut

Here three different chords are used for the song. Note the form numbers and names for each. Later, the significance will become clearer. These are not the forms that you will typically play, since they are somewhat tricky. Give them a try anyway. Later, some easier shapes for these chords will be presented.

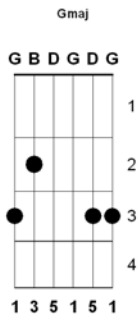
Form	3 rd Major Form	4 th Major Form	5 th Major Form
Name	D Major	G Major	C Major
Chord	Dmaj/F# F# A D A D F#  3 5 1 5 1 3	Gmaj G B D G D G  1 3 5 1 5 1	Cmaj/G G C E G C G  5 1 3 5 1 5



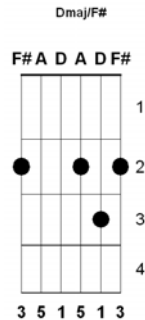
Found a pea nut.



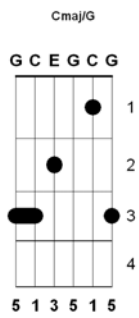
Found a pea nut.



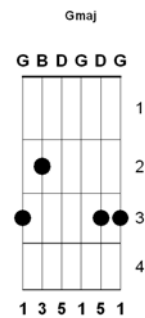
Found a p - ea nut



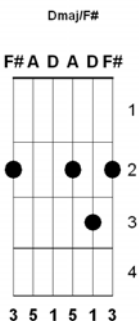
Last night ...



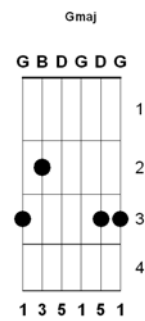
Last night I



Found a pea nut.



Found a p - ea nut



last Night. ...